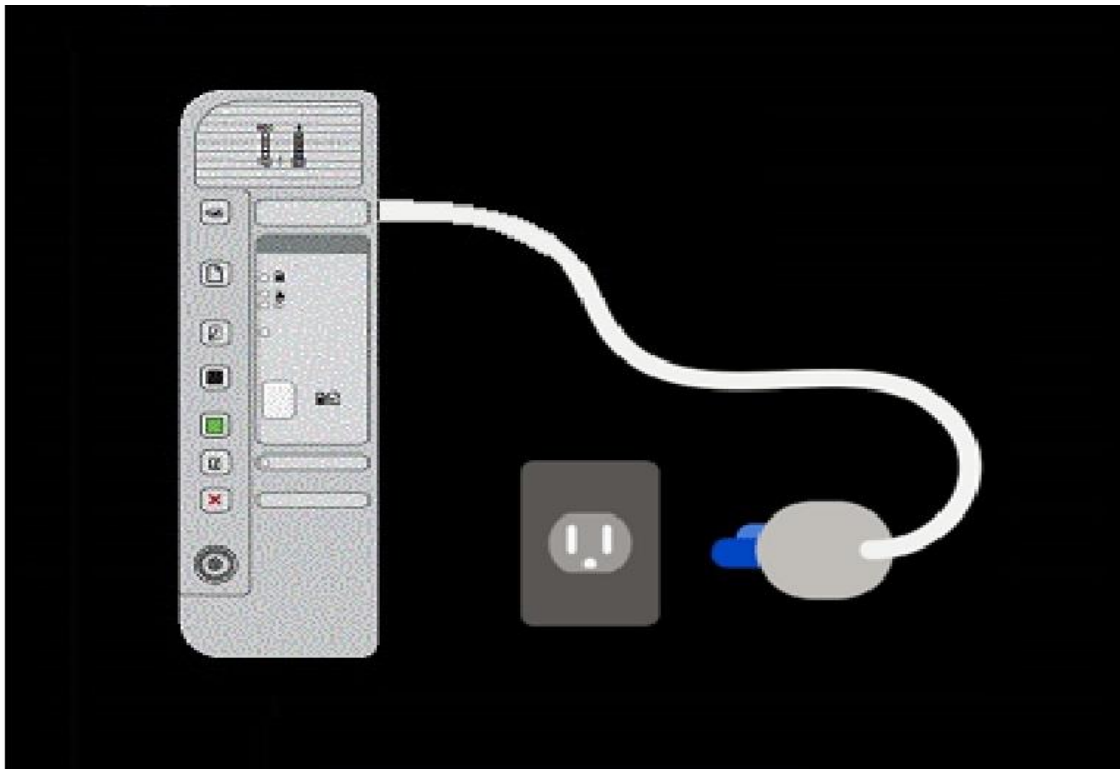


HOME REMOTE SECURITY CONTROL

Comp 1011 Final Project



Alan Colquhoun

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INTRODUCTION

Out of the 21 people that we surveyed, three themes repeatedly came up: security, automation and ease of use. Of these three, security was quite dominant, especially amongst 60% of the respondents (i.e. those that were male). In addition to security, some of our respondents expressed fears like: "people listening in or taking control", "a malfunction or bug causing me to lock myself out or something similar," "power failure", "not being easy enough to use" and "that it would go off when I didn't want it to." To us, this makes sense. Amongst those who were female, on a scale from 1 to 20, most expressed that it was difficult to use mobile phone apps (average of 15), whereas the males expressed that it was relatively easy (average of 7).

With respect to automation, control of heating and indoor/outside lighting were several things that were highly desired among our respondents. Amongst our female respondents heating and outdoor lighting were the top two things that they desired to schedule automatic actions for, followed by garden watering. Amongst our male respondents, heating was also at the top of desired features, followed by gardening and indoor/outside lighting (similar). Even control of stereo systems showed up, but just amongst the females.

User Interviews

Executive Summary

We interviewed people between the age of 18 and 65+. These interviews, along with the surveys, formed the basis of our personas. Of those we interviewed (21), most were men (13) – and expressed opinions related to security, ease of use and reliability. When we introduced the purpose of our app (Home Remote Control), many expressed things like “it should be convenient and easy to get used to it,” “it can be not safe because of hackers. Or, some internet security problems”, as well as “cost due to having to convert my home.”

When asked if there was anything that they’d fear with use of a home remote control system, users expressed things like: “ someone accessing my devices outside my home,” “that usernames and passwords can be breached”, “that the remote app will be too limited to be useful,” “that it would be difficult to use and cost too much” and “is it easy to install and use?” Not all respondents were necessarily interested in using a home remote app, and one even answered “I have never seen any remote control device in store. Is one widely available? Seems too new and not widely available.” I think this is true and that SMART devices are cutting edge. The answers to question 5 were of particular interest to me. Overall, the questionnaires provided insight into the user base that could conceivably make use of the app.

“Home Remote Control” Questionnaire

The questions in this section are designed to collect information about your viewpoints and understanding about technology. Matters associated with SMART Technology to control household systems are pertinent.

If you need more space, turn the page over.

1. What systems in your household would you like to control remotely? Why would this be advantageous?

- I guess all of them can be control remotely. It would be a lot of easier for me. For example, I don't need to walk to the wall and turn off the light.

2. What features do you think a house remote control should have?

- First, it should be simple. I don't need a complex, complicate, and fancy remote. It should be convenient and easy to get used to it.

3. What kinds of things do you not want to be controlled remotely?

- Maybe something like doors. If it can be open by remote app, then it might someone else do some long-distance control to my door.

4. Is there anything you'd fear with use of a house remote control?

- It can be not safe because of hackers. Or, some internet security problems.

5. What security issues would have with a remote control?

- Door opened by hackers

**6. What kinds of household devices do you have in your home?
Are any of them SMART technologies?**

(Examples: TV, Stereo, Security System, Computer, Router)

- Smart TV
- Smart Close-Circuit Camera
- Google Cast

**7. How often do you use your remote control at home?
How easy is it for you to use?**

- It depends on control what kinds of device. For Camera, I might check it only if something happened. Actually, I found that it should replace all the not SMART Camera. I would be able to watch the CCTV by my phone anywhere. When I'm not at home, I would be able to make sure no one will be in my house.

8. What kinds of apps do you use on your phone besides email?

- Google
- What's APP
- Twitter

“Home Remote Control” Questionnaire

The questions in this section are designed to collect information about your viewpoints and understanding about technology. Matters associated with SMART Technology to control household systems are pertinent.

If you need more space, turn the page over.

1. What systems in your household would you like to control remotely? Why would this be advantageous?

- For me, I would say TVs, lights, AC, doors, etc. For example, for lights, if you can control remotely instead of pressing each switch, it would be saving my time. Also, it can be turn on before I arrive home, then it would prevent that if it's too dark.

2. What features do you think a house remote control should have?

- For the features, definitely, the first thing you should think about is “smart”. What I mean smart is it must have Wi-Fi connect, voice-assist. Also, it should be programmable.

3. What kinds of things do you not want to be controlled remotely?

- My security safe box
- My phone

4. Is there anything you'd fear with use of a house remote control?

- You might accidentally turn on something through your phone, but you didn't know that until you arrived home.

5. What security issues would have with a remote control?

- Because when we said that an app can control anything, we always want to know that am I the only one be able to control this or hackers can do so.

**6. What kinds of household devices do you have in your home?
Are any of them SMART technologies?**

(Examples: TV, Stereo, Security System, Computer, Router)

- I have smart tv, smart speakers, and smart thermostat in my house.

**7. How often do you use your remote control at home?
How easy is it for you to use?**

- Smart TV is really good thing compare to tv couple years ago. It can cast all video from your phone to the TV. I use it everyday. It's a lot easier to use and find the channels or shows that you want to watch.

8. What kinds of apps do you use on your phone besides email?

- What's App to contact people.

"Home Remote Control" Questionnaire

1. What kinds of household devices do you currently own in your home?
Are any of them SMART technologies?

SMART TV, MICROWAVE, RICE COOKER,
ROUTER/WI-FI, COMPUTER, DVD PLAYER

2. Which of these systems are you open to controlling remotely?

ONLY THE TV AND ROUTER

3. Is there anything you'd fear with use of a house remote control?

SOMEONE ACCESSING MY DEVICES OUTSIDE MY HOME,
SECURITY. USERNAMES & PASSWORDS CAN BE BREACHED.

4. What features do you think a home remote control system should have?

① LOGIN/LOGOUT ② SURVEILLANCE VIA A CAMERA,
③ TURNING ON/OFF OUTSIDE LIGHTS, ④ TEMPERATURE
CONTROL AND ⑤ MEASUREMENT OF USAGE,

5. What do you think about controlling your home devices through a phone app? What issues would have with a remote control system?

I DON'T THINK I WOULD USE SUCH AN APP,
MY HUSBAND CAN DO SO, NOT ME. / WHAT
HAPPENS WHEN THE POWER GOES OUT?
DO I ALSO NEED A COMPUTER TO USE
THE PHONE APP?

"Home Remote Control" Questionnaire

1. What kinds of household devices do you currently own in your home?
Are any of them SMART technologies?

TV, indoor + outdoor lights, bread-maker,
toaster and dishwasher, computer.

2. Which of these systems are you open to controlling remotely?

TV - optic tv recording, turning off/on
lights. I access my computer remotely.

3. Is there anything you'd fear with use of a house remote control?

That the remote app will be too
limited to be useful. or that new devices
will be needed and cost me \$.

4. What features do you think a home remote control system
should have?

Turn on/off devices, automatic
scheduling for TV, lights + heating.

5. What do you think about controlling your home devices through a
phone app? What issues would have with a remote control system?

I have never seen any remote control
device in store. Is one widely available?
Seems too new and not widely
available.

"Home Remote Control" Questionnaire

1. **What kinds of household devices do you currently own in your home? Are any of them SMART technologies?**

COMPUTER, BLENDER + RICE COOKER.
I ALSO USE A OVEN, MICROWAVE AND
SMART TV, BUT ~~ID~~ I DO NOT OWN THESE AS I RENT.

2. **Which of these systems are you open to controlling remotely?**

NONE OF THESE REMOTELY.

3. **Is there anything you'd fear with use of a house remote control?**

THAT IT WOULD BE DIFFICULT TO
USE AND COST TOO MUCH.

4. **What features do you think a home remote control system should have?**

DON'T KNOW.

5. **What do you think about controlling your home devices through a phone app? What issues would have with a remote control system?**

I HAVE NO DEVICES THAT CAN BE
CONTROLLED REMOTELY. I WOULD HAVE
TO BUY NEW DEVICES I THINK. I
DO NOT KNOW ANYTHING ABOUT
"REMOTE CONTROL SYSTEM." CAN IT BE RENTED?

"Home Remote Control" Questionnaire

1. **What kinds of household devices do you currently own in your home?
Are any of them SMART technologies?**

TV, MICROWAVE + WASHER/DRYER

2. **Which of these systems are you open to controlling remotely?**

NONE OF THE ABOVE.

3. **Is there anything you'd fear with use of a house remote control?**

NOT REALLY, BUT IS IT EASY TO INSTALL AND USE?

4. **What features do you think a home remote control system should have?**

PHONE APP WITH OFF/ON BUTTONS FOR DEVICES SUCH AS TV, STEREO AND OUTSIDE LIGHTS (ON/OFF).

5. **What do you think about controlling your home devices through a phone app? What issues would have with a remote control system?**

CAN I DOWNLOAD THE APP FOR FREE? I DO NOT THINK I COULD AFFORD IT, AND ENGLISH IS MY 2ND LANGUAGE, IS IT MULTILINGUAL?

"Home Remote Control" Questionnaire

1. **What kinds of household devices do you currently own in your home? Are any of them SMART technologies?**

TV, gas oven and refrigerator.
None of them are SMART devices.

2. **Which of these systems are you open to controlling remotely?**

None of them.

3. **Is there anything you'd fear with use of a house remote control?**

Cost due to having to convert
my home.

4. **What features do you think a home remote control system should have?**

Security feature + device
off/on status.

5. **What do you think about controlling your home devices through a phone app? What issues would have with a remote control system?**

Would not use such an app,
Not being easy enough to use
and losing the remote, how
to replace it.

Surveys

Executive Summary

After we conducted the survey, I analyzed the results and split the results into two groups: men and women. I felt that we needed to dig down into the data and discover more about our potential users. As seen below, I even assigned personas based on it. Based on the data, men were more technically inclined than women and SMART devices were sometimes already in use. Other devices could also be controlled remotely. Respondents said that they would like to control heating, garden watering, shutters and blinds, as well as lighting.

Question 2:	Persona	Question 3:	Question 4:	WOMEN
18-24	3 Luke	1	1 2	1 15
25-34	3 Mike	2	2 15	2 17
35-44	1	3 1	3 8	3 15
45-54	3 Alan	4 1	4 1	4 16
55-64	2	5+ 1	5 11	5 17
65+	1		6 1	6 17
			7 3	7 5
	13	3	8 17	8 17
			9 3	
49	35	4 Equal g.	10 2	119
			11 3	14.875
			12 10	
			13 15	
			Avg 7	

Question 6:		Question 8:	
Router / Wi-Fi		Heating	3 INSIDE
Electronic Door Locks		Garden Watering	3 OUTSIDE
Washer / Dryer		Shutters and Blinds	2 Security
Stereo		Outdoor Lighting	2 - lighting
None		Indoor Lighting	2
Laptop, Cellphone		SMART TV	1
SMART TV	2	Router / Wi-fi	
Security Surveillance	1	Stereo System	
SMART Thermostat	1	Outdoor Lighting	
Alarms and Sensors	1	AC	
	3		
Easier for them than average = 11			

Home Remote Control

⊕ PAGE TITLE

This is a survey for a UX Design Class. :)
Thank you for taking the time to fill it out.

1. What is your gender?

- ☐ Male
- ☐ Female
- ☐ Prefer not to answer

2. How old are you?

- ☐ Under 18
- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65+
- ☐ Prefer not to answer

3. How many people currently live in your household?

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5+

* 4. On a scale from 1 to 20, how easy is it for you to use mobile phone apps?

1 1 = Easy, 20 = Difficult 20

5. Which of these devices do you have in your home?

- ☐ SMART TV
- ☐ Stereo
- ☐ SMART Thermostat
- ☐ Washer / Dryer
- ☐ Electric Door Locks
- ☐ Security Surveillance
- ☐ Router / Wi-fi
- ☐ Alarms and Sensors

Other (please specify)

6. Which of these devices are you OK with remotely controlling from outside your home?

☐ SMART TV

☐ Electronic Door Locks

☐ Stereo

☐ Security Surveillance

☐ SMART Thermostat

☐ Router / Wi-Fi

☐ Washer / Dryer

☐ Alarms and Sensors

Other (please specify)

7. What would you expect to pay for a "Smart Home" product if it could remotely control the selected systems in your household?

☐ \$0 - \$4 / month

☐ \$15 - \$19 / month

☐ \$5 - \$9 / month

☐ \$20 - \$24 / month

☐ \$10 - \$14 / month

☐ Over \$24 / month

8. What devices would you like to schedule automatic actions to?

☐ Shutters and Blinds

☐ Outdoor Lighting

☐ Indoor Lighting

☐ Heating

☐ Garden Watering

☐ SMART TV

☐ Stereo System

☐ Router / Wi-fi

Other (please specify)

* 9. What do you consider to be the most important features in home remote system? Rank in order of importance

☰	⬆	Control with voice commands
☰	⬆	Control with keypad or touch screen
☰	⬆	Tracking energy usage / consumption
☰	⬆	Controlling lights w/ automation
☰	⬆	Cameras or sensors that keep an eye on household areas
☰	⬆	Home access (door locks or keypads)

10. What sort of fears do you have with a home remote system in your home?

Q1

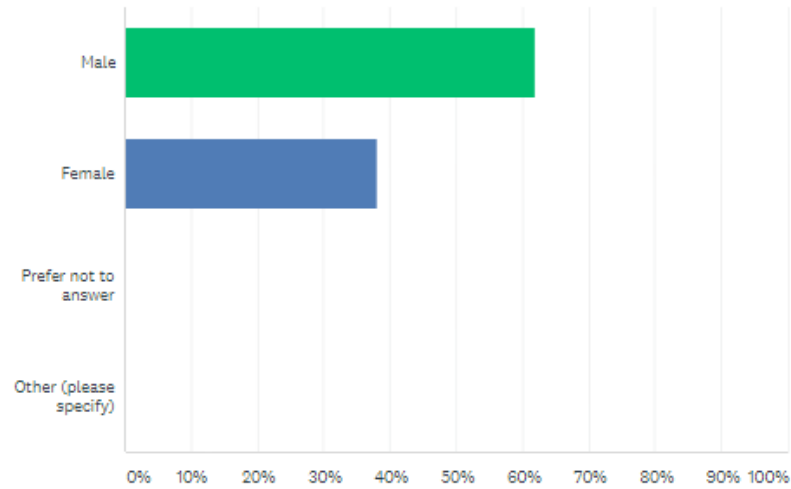


Customize

Save as ▼

What is your gender?

Answered: 21 Skipped: 0



ANSWER CHOICES	RESPONSES	
Male	61.90%	13
Female	38.10%	8
Prefer not to answer	0.00%	0
Other (please specify)	Responses 0.00%	0
TOTAL		21

Q2

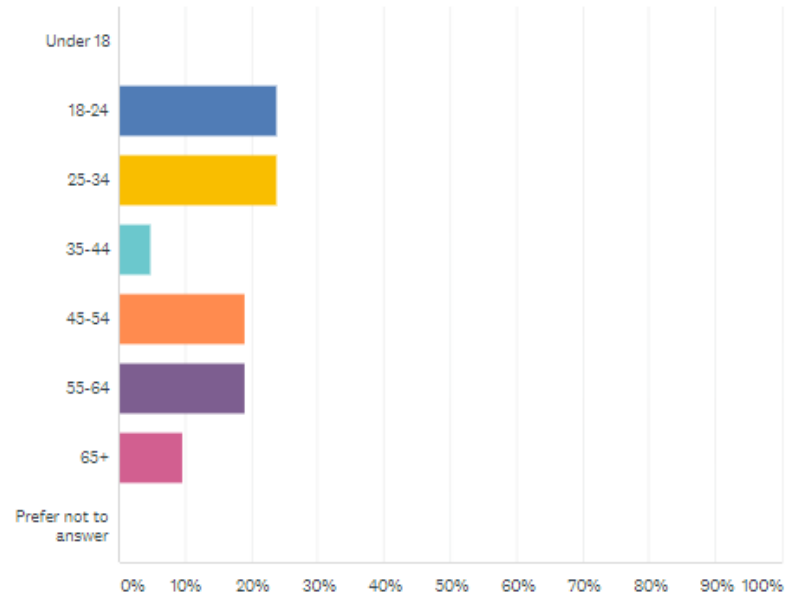


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How old are you?

Answered: 21 Skipped: 0



ANSWER CHOICES ▼	RESPONSES ▼	
▼ Under 18	0.00%	0
▼ 18-24	23.81%	5
▼ 25-34	23.81%	5
▼ 35-44	4.76%	1
▼ 45-54	19.05%	4
▼ 55-64	19.05%	4
▼ 65+	9.52%	2
▼ Prefer not to answer	0.00%	0
TOTAL		21

Q3

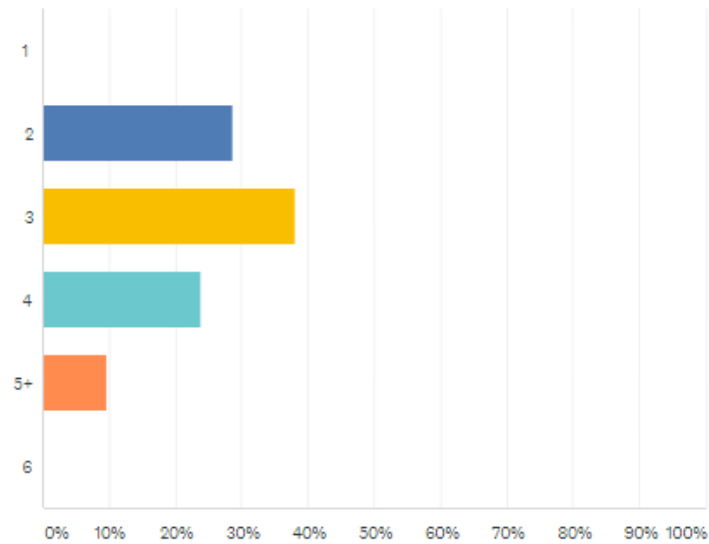


Customize

Save as ▼

How many people currently live in your household?

Answered: 21 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ 1	0.00% 0
▼ 2	28.57% 6
▼ 3	38.10% 8
▼ 4	23.81% 5
▼ 5+	9.52% 2
▼ 6	0.00% 0
TOTAL	21

Q4

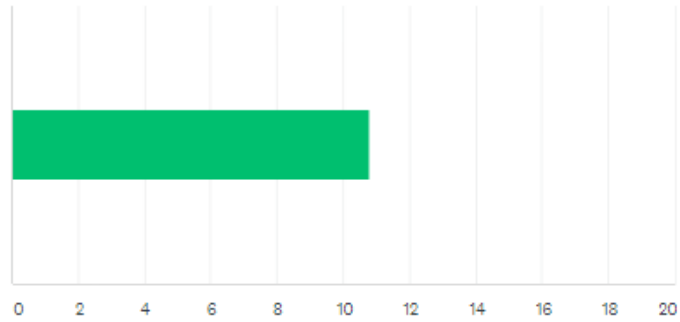


Customize

Save as ▼

On a scale from 1 to 20, how easy is it for you to use mobile phone apps?

Answered: 21 Skipped: 0



ANSWER CHOICES ▼	AVERAGE NUMBER ▼	TOTAL NUMBER ▼	RESPONSES ▼
Responses	11	227	21
Total Respondents: 21			

Q5

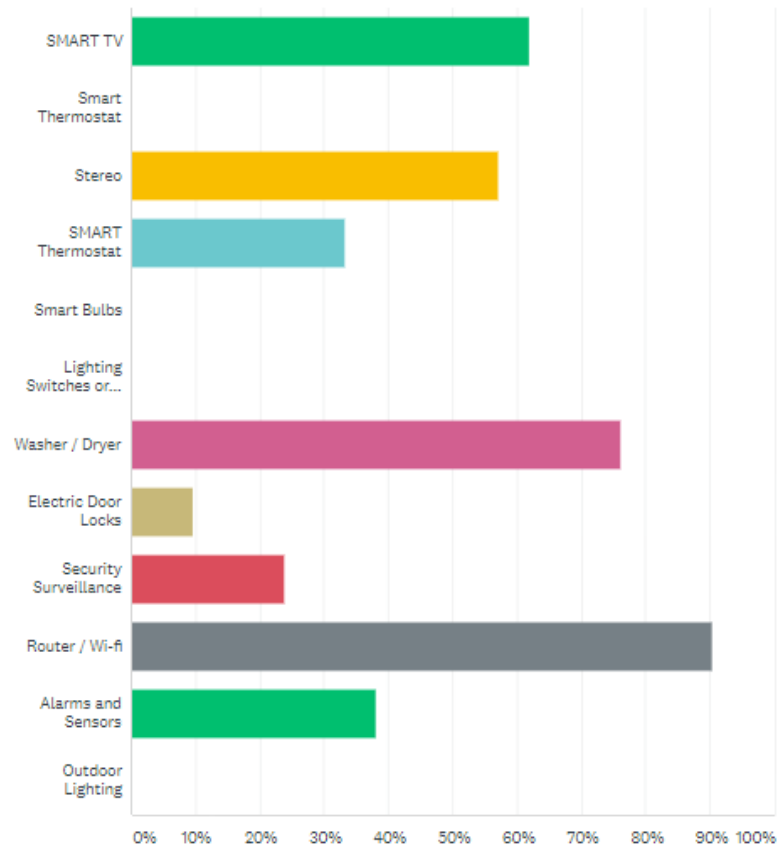


Customize

Save as ▼

Which of these devices do you have in your home?

Answered: 21 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ SMART TV	61.90%	13
▼ Smart Thermostat	0.00%	0
▼ Stereo	57.14%	12
▼ SMART Thermostat	33.33%	7
▼ Smart Bulbs	0.00%	0
▼ Lighting Switches or Outlets	0.00%	0
▼ Washer / Dryer	76.19%	16
▼ Electric Door Locks	9.52%	2
▼ Security Surveillance	23.81%	5
▼ Router / Wi-fi	90.48%	19
▼ Alarms and Sensors	38.10%	8
▼ Outdoor Lighting	0.00%	0
Total Respondents: 21		

[Comments \(6\)](#)

Q6

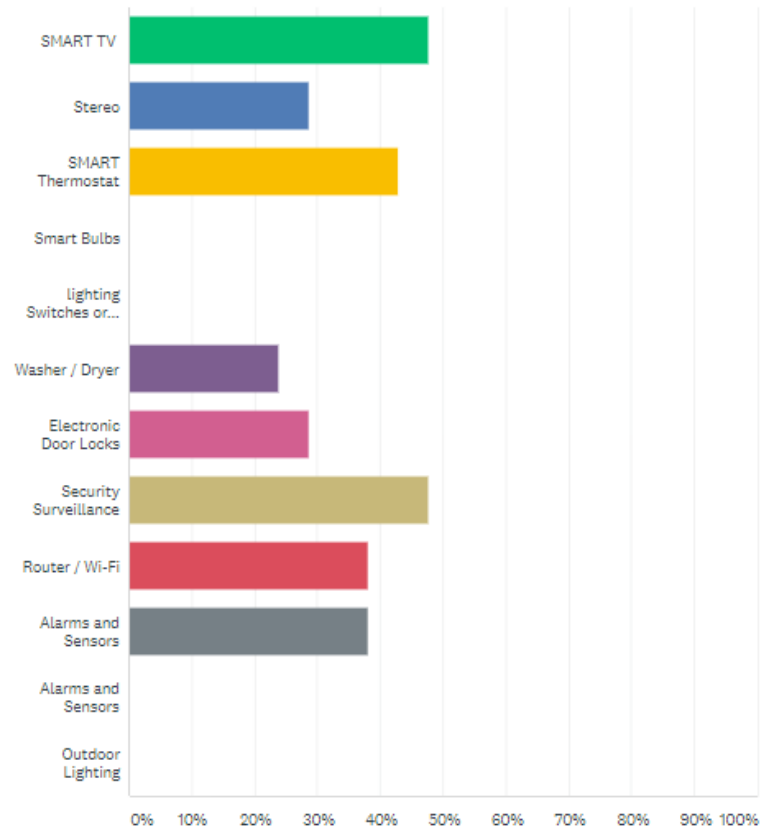


Customize

Save as ▼

Which of these devices are you OK with remotely controlling from outside your home?

Answered: 21 Skipped: 0



ANSWER CHOICES ▼	RESPONSES ▼	
▼ SMART TV	47.62%	10
▼ Stereo	28.57%	6
▼ SMART Thermostat	42.86%	9
▼ Smart Bulbs	0.00%	0
▼ lighting Switches or Outlets	0.00%	0
▼ Washer / Dryer	23.81%	5
▼ Electronic Door Locks	28.57%	6
▼ Security Surveillance	47.62%	10
▼ Router / Wi-Fi	38.10%	8
▼ Alarms and Sensors	38.10%	8
▼ Alarms and Sensors	0.00%	0
▼ Outdoor Lighting	0.00%	0
Total Respondents: 21		

Comments (3)

Q7

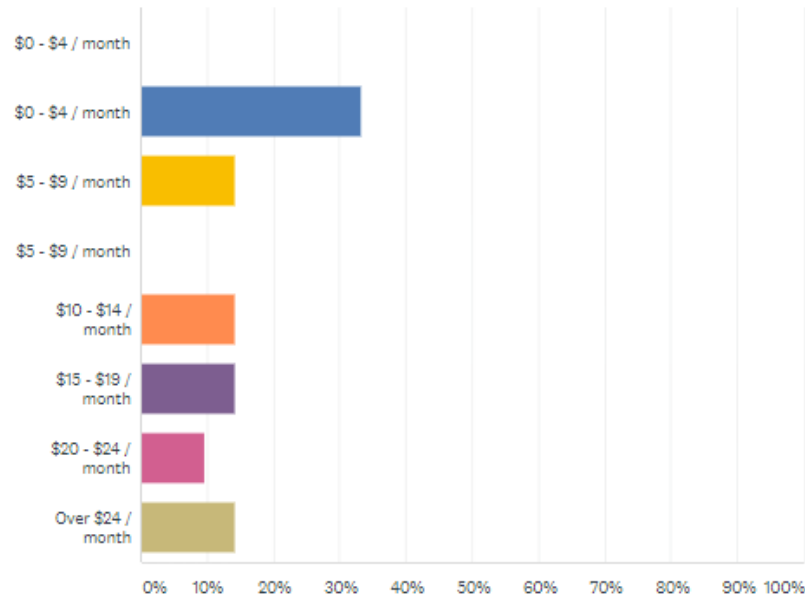


Customize

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What would you expect to pay for a "Smart Home" product if it could remotely control the selected systems in your household?

Answered: 21 Skipped: 0



ANSWER CHOICES ▼	RESPONSES ▼
▼ \$0 - \$4 / month	0.00% 0
▼ \$0 - \$4 / month	33.33% 7
▼ \$5 - \$9 / month	14.29% 3
▼ \$5 - \$9 / month	0.00% 0
▼ \$10 - \$14 / month	14.29% 3
▼ \$15 - \$19 / month	14.29% 3
▼ \$20 - \$24 / month	9.52% 2
▼ Over \$24 / month	14.29% 3
TOTAL	21

Q8

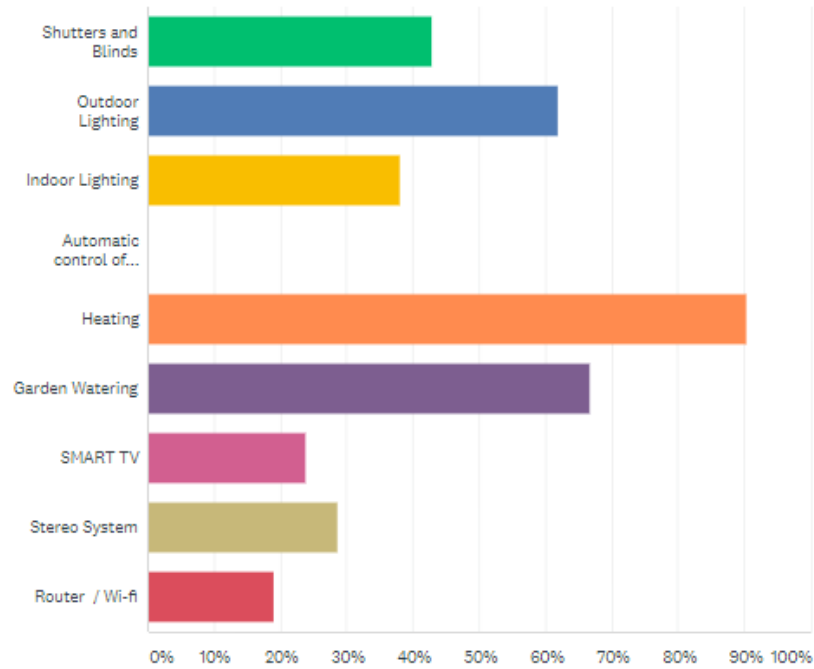


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What devices would you like to schedule automatic actions to?

Answered: 21 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ Shutter and Blinds	42.86% 9
▼ Outdoor Lighting	61.90% 13
▼ Indoor Lighting	38.10% 8
▼ Automatic control of outdoor lights	0.00% 0
▼ Heating	90.48% 19
▼ Garden Watering	66.67% 14
▼ SMART TV	23.81% 5
▼ Stereo System	28.57% 6
▼ Router / Wi-fi	19.05% 4
Total Respondents: 21	

[Comments \(2\)](#)

Q9

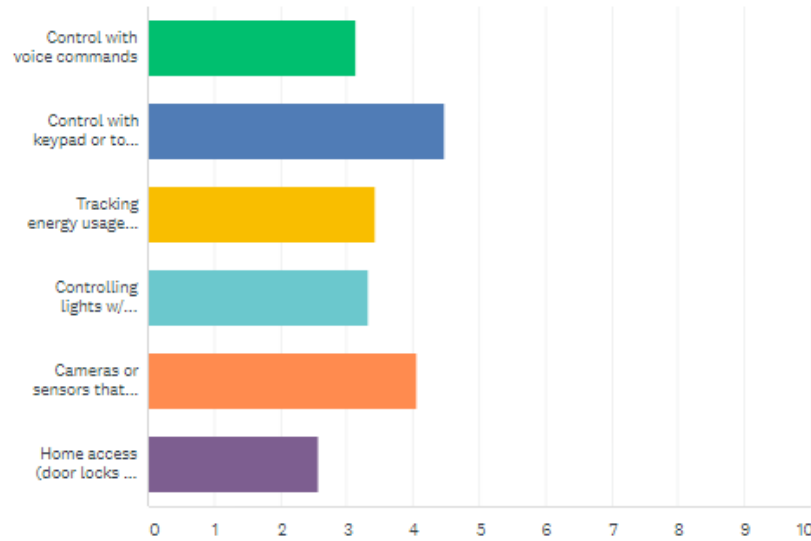


Customize

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What do you consider to be the most important features in home remote system? Rank in order of importance

Answered: 21 Skipped: 0



	1	2	3	4	5	6	TOTAL	SCORE
▼ Control with voice commands	19.05% 4	14.29% 3	4.76% 1	19.05% 4	9.52% 2	33.33% 7	21	3.14
▼ Control with keypad or touch screen	33.33% 7	28.57% 6	9.52% 2	14.29% 3	9.52% 2	4.76% 1	21	4.48
▼ Tracking energy usage / consumption	9.52% 2	14.29% 3	28.57% 6	23.81% 5	4.76% 1	19.05% 4	21	3.43
▼ Controlling lights w/ automation	0.00% 0	14.29% 3	38.10% 8	19.05% 4	23.81% 5	4.76% 1	21	3.33
▼ Cameras or sensors that keep an eye on household areas	28.57% 6	23.81% 5	14.29% 3	4.76% 1	14.29% 3	14.29% 3	21	4.06
▼ Home access (door locks or keypads)	9.52% 2	4.76% 1	4.76% 1	19.05% 4	38.10% 8	23.81% 5	21	2.57

Q10

 Save as ▼

What sort of fears do you have with a home remote system in your home?

Answered: 21 Skipped: 0

RESPONSES (21) WORD CLOUD TAGS (0)

 Sentiments: OFF 



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Apply to selected ▼

Filter by tag ▼

Search responses



Showing 21 responses

9/23/2019 10:45 AM

[View respondent's answers](#)

[Add tags ▼](#)



Surveillance

9/23/2019 10:43 AM

[View respondent's answers](#)

[Add tags ▼](#)



Cost. Would it be too expensive? Would it go off when I didn't want it to?

9/23/2019 10:23 AM

[View respondent's answers](#)

[Add tags ▼](#)



That it would fail, negating any benefits.

9/23/2019 10:23 AM

[View respondent's answers](#)

[Add tags ▼](#)



Having someone control/access my household with the same type of remote control that I have.

9/23/2019 9:54 AM

[View respondent's answers](#)

[Add tags ▼](#)

Answers in “Other” sections ...

Question 5:

Satellite controlled clock

9/23/2019 2:44 PM [Add tags](#) - [View respondent's answers](#)



TV, just not a smart one

9/23/2019 2:18 PM [Add tags](#) - [View respondent's answers](#)



Laptop, Cell Phone

9/23/2019 12:45 PM [Add tags](#) - [View respondent's answers](#)



Computer, Karaoke Machine and Mobile Ph9!e

9/23/2019 11:15 AM [Add tags](#) - [View respondent's answers](#)



WiFi sound system

9/23/2019 11:10 AM [Add tags](#) - [View respondent's answers](#)



Sony Blu-Ray DVD Player

9/23/2019 9:54 AM

Question 6:

None

9/23/2019 2:18 PM [Add tags](#) - [View respondent's answers](#)



Laptop, Cell Phone

9/23/2019 12:45 PM [Add tags](#) - [View respondent's answers](#)



None

Question 8:

AC

9/23/2019 2:18 PM [Add tags](#) - [View respondent's answers](#)



None

9/23/2019 11:05 AM

Getting hacked and having hackers view/monitor my home

9/23/2019 11:59 PM [Add tags](#) - [View respondent's answers](#)



security of course

9/23/2019 10:40 PM [Add tags](#) - [View respondent's answers](#)



security

9/23/2019 9:32 PM [Add tags](#) - [View respondent's answers](#)



people listening in or taking control

9/23/2019 9:21 PM [Add tags](#) - [View respondent's answers](#)



hackers

9/23/2019 8:01 PM [Add tags](#) - [View respondent's answers](#)



Someone hacking into my systems. A malfunction or bug causing me to lock myself out or something similar...

9/23/2019 6:54 PM [Add tags](#) - [View respondent's answers](#)



Unintended surveillance or having my personal data of usage habits and patters sold.

9/23/2019 6:46 PM [Add tags](#) - [View respondent's answers](#)



Malfunction

9/23/2019 2:44 PM [Add tags](#) - [View respondent's answers](#)



Hacking

9/23/2019 2:18 PM [Add tags](#) - [View respondent's answers](#)



Passwords

9/23/2019 1:58 PM [Add tags](#) - [View respondent's answers](#)



Hackers

9/23/2019 12:45 PM [Add tags](#) - [View respondent's answers](#)



Power failure.

9/23/2019 11:48 AM [Add tags](#) - [View respondent's answers](#)



Not being easy enough to use.

9/23/2019 11:15 AM [Add tags](#) - [View respondent's answers](#)



Security and hacking of private information or loss of control to a third party. Also reliance on a system that fails and then not having access or prices becoming too expensive.

9/23/2019 11:10 AM [Add tags](#) - [View respondent's answers](#)



No fears.... No need!!

9/23/2019 11:05 AM [Add tags](#) - [View respondent's answers](#)



That I will use it the wrong way and accidentally open my front door. That prices will increase once I begin using such a system.

9/23/2019 10:53 AM [Add tags](#) - [View respondent's answers](#)



Can be hacked into or they stop working and cannot be used manually

9/23/2019 10:45 AM [Add tags](#) - [View respondent's answers](#)



Surveillance

9/23/2019 10:43 AM [Add tags](#) - [View respondent's answers](#)



Cost. Would it be too expensive? Would it go off when I didn't want it to?

9/23/2019 10:23 AM [Add tags](#) - [View respondent's answers](#)



That it would fail, negating any benefits.

9/23/2019 10:23 AM [Add tags](#) - [View respondent's answers](#)



Having someone control/access my household with the same type of remote control that I have.

9/23/2019 9:54 AM [Add tags](#) - [View respondent's answer](#)

Personas

CHRIS PARKER



Profile:

Gender: Male

Age: 20

Ethnicity: Caucasian

Marital Status: Single

Profession: Part-time job at Starbucks

Languages Spoken: English, French

- Lives with his parents
- Has one dog
- Undergraduate

Characteristics:

- Hobbies: plays with his dog
- Walks his dog twice a day
- Has a laptop and smart TV
- Has a smart thermostat
- Frequently checks his indoor cameras

Pain Points:

- Want to make sure that his dog doesn't cause trouble when he is away from home
- Wants to live in a comfortable house environment

Needs:

1. Needs dog feeder to be scheduled
2. Need AC/Heating to be scheduled
3. Needs in-door camera to be accessible by phone

MARTHA ANDERSON



Profile:

Gender: Female

Age: 30

Ethnicity: Caucasian

Marital Status: Married

Profession: Accountant

Languages Spoken: English, German

- Has at 2 children
- Stay at home mom
- Accounting office is at home

Characteristics:

- Hobbies: Gardening & Hiking (likes the outdoors)
- Downloads and Likes to watch movies
- Has a Laptop (stores many movies on it)
- 1 story home
- Overprotective of her children
- Slightly forgetful

Pain Points:

- Wants it to be easily accessible by herself, difficult for others to access, and no worries if anything occurs outside the system.
- Simple design so that it is easy to learn, easy to use, and reliable so she can focus on the things she wants to focus on.

Needs:

1. Scheduling system – schedules everything.
2. Reports/Records of how the system is doing, such as:
(Notifications)
 - Who tried to access the system (other than the primary user)
 - Whether or not an action when through successfully (graphs)
 - Notifications when a scheduled action fails
 - How many tasks occurred today (daily) (general statistics)
3. Access to specific features of each device
4. Override function for devices (force devices on/off, and prevents manual use)

TOHMAS BURGUNDY



Profile:

Gender: Male

Age: 27

Ethnicity: Caucasian

Marital Status: Single

Profession: Physical Education Teacher

Languages Spoken: English

- Lives with his roommates
- Loves Sports
- Lives with his best friends, whom are also sports fans

Characteristics:

- Loves all forms of physical activity
- Has a laptop, smart TV, stereo system, and smart thermostat
- Doesn't like missing the big games, and if he must, will pre-record them while he is out to watch later.
- Listens to music when doing paperwork.
- Collector of sports-related figures and photos, as well as signed equipment.

Pain Points:

- Not very tech savvy, and doesn't want to learn too much, but still prefers using it over not. In short, it needs to be very simple to use.
- Wishes to easily have all his needs scheduled, including recordings, lighting, and temperature, whenever he needs it.

Needs:

1. Easy, instantaneous Scheduling system, for when important things come up.
2. Reports/Records of how the system is, such as: (Notifications)
 - Whether or not an action when through successfully (graphs)
 - Notifications when a scheduled action fails
 - Ability to view activity around his collectables to ensure no one touches them.
3. Access to specific features of each device, such as volume control and Temperature.

ROBERT BLAKE



Profile:

Gender: Male

Age: 49 years old

Ethnicity: Caucasian

Marital Status: Married

Profession: Fire Fighter / Shift Commander

Languages Spoken: English

- Has 2 children
- Wife Nancy is a stewardess
- Lives in a station 5 days a week
- Ex-musician

Characteristics:

- Lives remotely away from home and his wife is normally out of the country (she works for an airline). Remote access is important.
- Robert does not have time to look at reports, apart from those at work -- and just wants to **see** that things are OK; visual confirmation is important to him.
- Robert wants all the best technology that is available to protect all that is of value in the household, including expensive musical instruments (1962 Hofner bass and Gibson J-160E acoustic guitar).
- Both Robert and Nancy are well off, and busy most of the time elsewhere. Looking forward to retirement, the device is their current security blanket. Cost is not an issue.
- Both Robert and Nancy value use of the SMART thermostat now that they are older and are about to retire early and sell their home of 30 years. Robert looks forward to a change in lifestyle.

Pain Points:

- Robert and Nancy's home is empty about 70% of the time and has been broken into twice.
- Robert fears that he'll be targeted by thieves again.
- The alarm system in place is connected to a security firm, but Robert feels it is not enough. He wants to feel that HE is in control, not the security firm.
- Both Robert and Nancy want to feel secure and are weary that someone could use the same remote technology to gain access to what they have worked so hard to gain.
- Robert has a stressful job and is on call 24 hours a day, seven days a week, 365 days of the year. "Most days are relatively routine broken up by occasional chaos."

Needs:

1. Requires automatic logoff due to having to abandon the app suddenly at times.
2. Use of surveillance is important to him, as well as control of key household systems (shutters, as well as indoor and outdoor lighting) to make it appear as if someone is home.
3. Wants to turn on/off the SMART TV for security purposes.
4. Twice a month, Robert has someone to come in and clean his house. She needs limited access – and he wants to schedule the day/time she is permitted into the house, excluding the band room and garage. (In the garage, is his 67 Ford Mustang that he prizes.)

A Day In The Life

A WEEKDAY IN CHRIS' LIFE:

1. Wakes up
2. Eats breakfast prepared by mom
3. Checks Instagram and twitter while eating breakfast
4. Walks his dog
5. Dresses up and goes to school by bus
6. After finished class in the morning, buy lunch from the food truck
7. Goes to the library and does some homework
8. Checks his in-door camera make sure dog feeder has fed his dog
9. Goes to the Starbucks and start working
10. After work, turn on heating before arrived home
11. Have dinner with his parents
12. Watches NBA games and some shows
13. Walks his dog
14. Set the alarm for tomorrow morning
15. Goes to bed.

A SCHOOL DAY IN MARTHA'S LIFE:

1. Wakes up to a cup of coffee prepared from scheduled independent coffee maker.
2. Prepare breakfast for herself and her kids.
3. Takes kids to school. Chats with other moms at school.
4. Goes to Supermarket to get any groceries/supplies she may need.
5. Once she heads home, immediately tends to the garden. Brings everything inside afterwards.
6. Goes online until lunch (downloads Movies, checking Facebook and news/movie reviews, works with friends on events, scheduling/recording activities).
7. Makes and eats lunch at home, then exercises/watches TV.
8. Picks up kids from school and takes them home.
9. Prepares dinner while watching her favorite shows/a movie she's currently into.
10. Husband comes home, family eats dinner together.
11. Afterwards, watches either a Movie or series with her husband. Sometimes the kids join in too.
12. If there's spare time before the kids go to bed, she goes online.
13. Takes kids to bed, prepares meals for breakfast for husband and lunches for kids.
14. Goes online to prepare movie downloads, checks over entire home to see if everything is fine (security check).
15. Goes to bed.

TYPICAL DAY IN THE LIFE OF TOHMAS BURGUNDY:

1. Wakes up to a whole-hearty breakfast early in the morning.
2. Does his morning warm-up using a specialized exercise tape he has recorded to prepare himself for the day ahead.
3. Jogs to the school to prepare for classes. Drives if he needs to bring supplies such as sports equipment/papers, or if it's a Friday.
4. Begins classes/work.
5. During lunch break he relaxes in the staff room with his meal, checking social media on his phone for any updates on the games.
6. Continues classes/work.
7. After classes, coaches the school's Basketball/Volleyball/Soccer team depending on the day of the week alongside other coaches, or engages in staff meetings/events,
8. Jogs back home if he doesn't have a car. If he has one, he instead heads to the supermarket to purchase any groceries he may need.
9. Meets up with his friends to hang out. Sometimes they play games, other times they relax and talk about how things are going. If no one is available, he instead spends his time at the gym.
10. Returns home to dinner.
11. After eating, does any additional work that needs to be done before checking out sports news channels.
12. If he has nothing else to do before bed, he may either watch TV or play some games on his phone.
13. Goes to sleep early enough so he may prepare for the day ahead.

ROBERT'S SHIFT LIFE MONDAY TO FRIDAY

Role: Shift Commander

07:30	Shift change = new crew arrives.
07:30 – 08:30	First order of business: checking all the apparatus; making sure the trucks, equipment, breathing apparatus and other devices are ready for service if called upon. Truck checks and maintenance (usually washing)
08:00	Full-time employees (non-fire fighters work from 8 am – 5pm).
08:30	Station duties (every day employees have a different chore: landscaping, cleaning, windows, etc.)
09:00	1) Arrival of food orders as scheduled 2) Physical fitness training (myself and all crew)
10:00	Public talks at local schools re: fire safety.
12:00 – 12:30	Lunch with crew.
12:30 – 13:30	Training to junior employee who is taking over as shift commander; go over any issues that have occurred.
13:30 – 14:00	Communicates with wife and monitors house with remote surveillance.
14:00 – 15:00	Goes shopping locally for food and any other items. Sometimes uses device.
15:00 – 16:00	Crew training and review of procedures.
16:00 – 17:00	Station duties not handled in the morning.
17:00	Full-time employees working 9 hours depart.
17:00 – 18:00	Free time / Usual time for a fire drill (unannounced). “If I am using the device, it is immediately abandoned and should turn off by itself.”
18:00 – 19:00	Crew cooks at station → Dinner. <i>Brotherhood of fire fighters.</i>
19:00 – 20:00	1) Clean up kitchen and dinning table. 2) Administrative work
20:00 →	Relax & Watch TV // play cards with the crew
22:00 – 24:00	Must go to sleep sometime after 10pm.
06:30 – 07:00	Wakes up at the fire station and does some morning chores
07:00 – 07:30	Breakfast with departing crew // Review external food orders.
07:30	Uses device to check home as new crew arrives. If something is wrong, he has someone else handle the situation on his behalf.

User Stories

Chris Parker [Mike]

1. As a student, I want to schedule and access a surveillance camera via my phone when I'm not home so that I know it is secure.
2. As a pet owner, I want schedule my dog feeder by phone so I can feed my dog while I'm away from home.
3. As a son, I want to control heating by phone so that the temperature of the house is warm enough for my parents.
4. As a Basketball fan, I want to schedule my SMART TV to record weekly NBA games.

Martha Anderson

1. As a mother, I would like to check my children's active TV use and turn it off if they use it too much [Luke]
2. As a garden lover, I would like to schedule the garden watering system so that it is self-watering [Mike].
3. As a homeowner, I want the system to be secure so that only my husband and I have access to it [Alan].
4. As a homeowner, I want the system to be easy to learn and use so that I can focus on other things [Alan].

Tohmas Burgundy [Luke]

1. As a Sports Fan, I want to ensure I can record any game I miss so I may watch it later on, anytime or anywhere.
2. As a Collector, I want to ensure the safety and security of my valuables within my home.
3. As a busy teacher, I want to be able to automatically setup my morning schedule so I can do everything before heading to work.
4. As an athlete, I want to be able to come home and relax after My daily workout, and have everything ready to do so when I arrive (Heating/AC, for example).

Robert Blake [Alan]

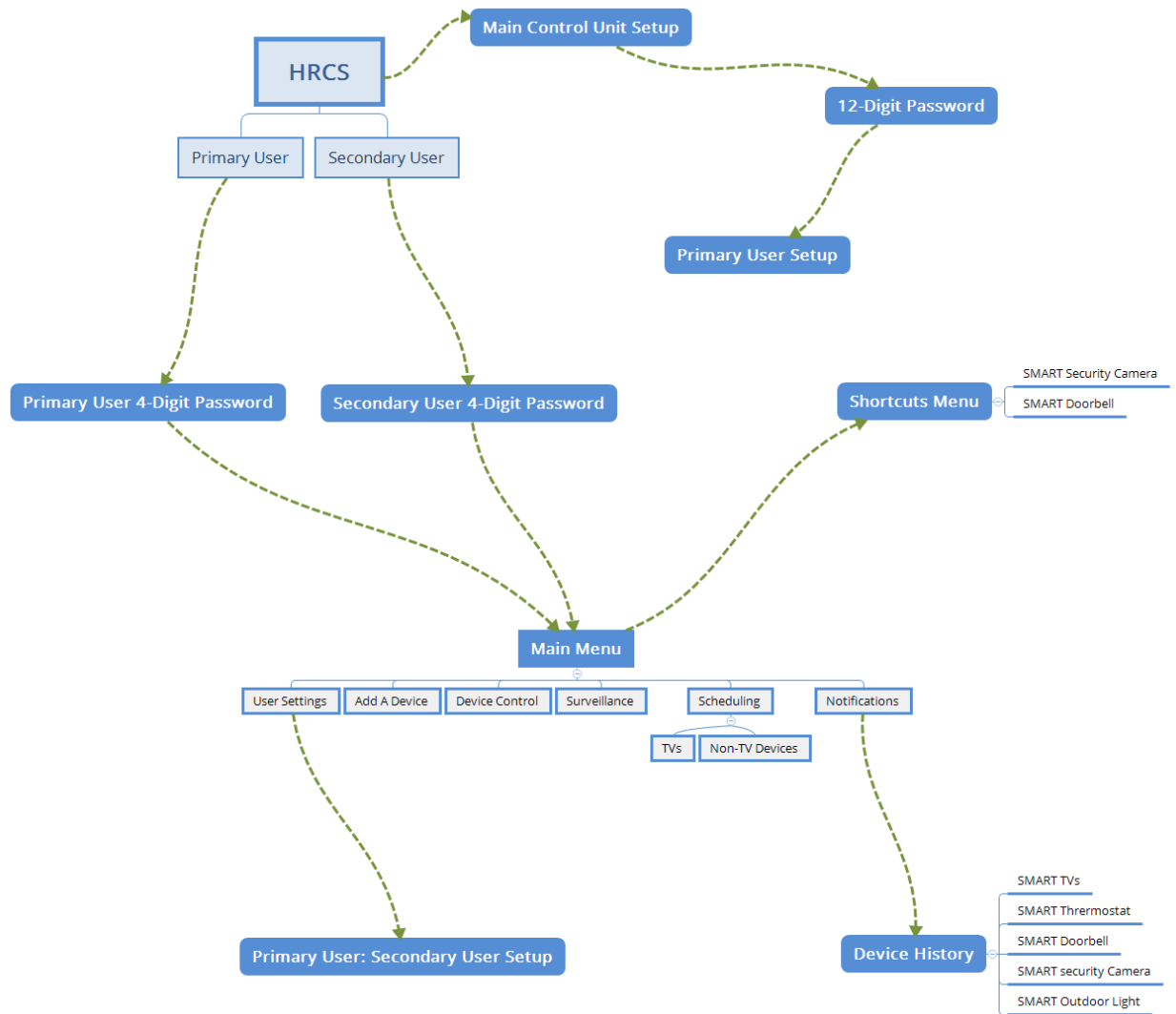
1. As a homeowner, I want to use outside and indoor surveillance so that I can remotely confirm that my house is secure and that the house has not been broken into.
2. As a homeowner, I want to be able to control key household systems (SMART TV, shutters, as well as indoor and outdoor lighting) so that it appears as if someone is home.
3. As a homeowner, I want to restrict access to a house cleaner so that she has access to the house on a specified day/time and to specified areas.
4. As a fire fighter, I require automatic logoff so that the app will shut off if I suddenly have to abandon it.

Customer Journey Map

The following customer journey map is based on the persona of Martha Anderson as she is a core central user. On a dart board she would be near the center.

						
	Pre-App Experience	App Setup	Adding Users and Devices	Evaluating the App	Jedi Mastery of Features	Promoting the App
						
User Goals	Martha wants to remotely control her household devices.	Martha refers to the user guide and knows the steps required to setup the app	Martha wants to add her husband and assign him priviledges.	Martha is getting to know the app during the evaluation period.	Martha feels confident about use of the app and gets positive feedback from secondary users.	Martha wants to promote the app on the company website.
User Expectations	Martha wants the system to be easy to use, as well as secure.	Marth expects the setup to proceed smoothly and without any technical problems.	Martha does not want to lose any user settings that she enters.	Martha is happy that if the app does not meet her expectations, she can return it.	Martha expects that the app will not fail before the warranty expires.	Martha expects to get some credit or pay from the company.
Possible Touchpoints		Martha might need to call customer support if there are problems.	Martha might need to call customer support if there are problems.	Martha is called by sales people to see if she is happy and what they can do to make the experience better.	Martha visits the company website and sees other posirive user experiences.	Martha makes use of the forum and answers questions.
Process		Setup of the app.	Setup for Primary User and User Settings for all Secondary Users	Daily Use	Daily Use & Use of Website	Daily Use & Use of Website

User Flow



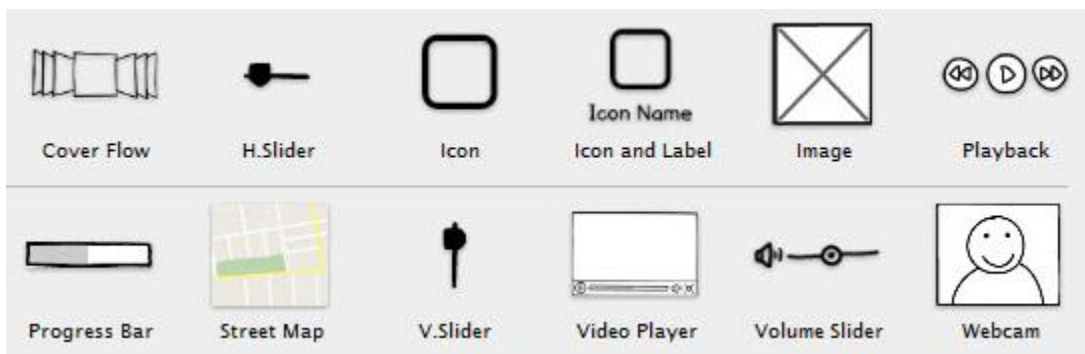
Appendix

Alan's Drawings:

I created 6 mobile drawings on one side of the 8.5' x 11' paper I was provided [minus the “Other Devices” screen] and 4 on the other side, one for each type of diagram. There are four types of sub-screens:

- 4 surveillance screens,
- 2 door screens (front door / garage door)
- temperature/ceiling fans screens
- 4 blinds screens (bedroom, dining room, living room)

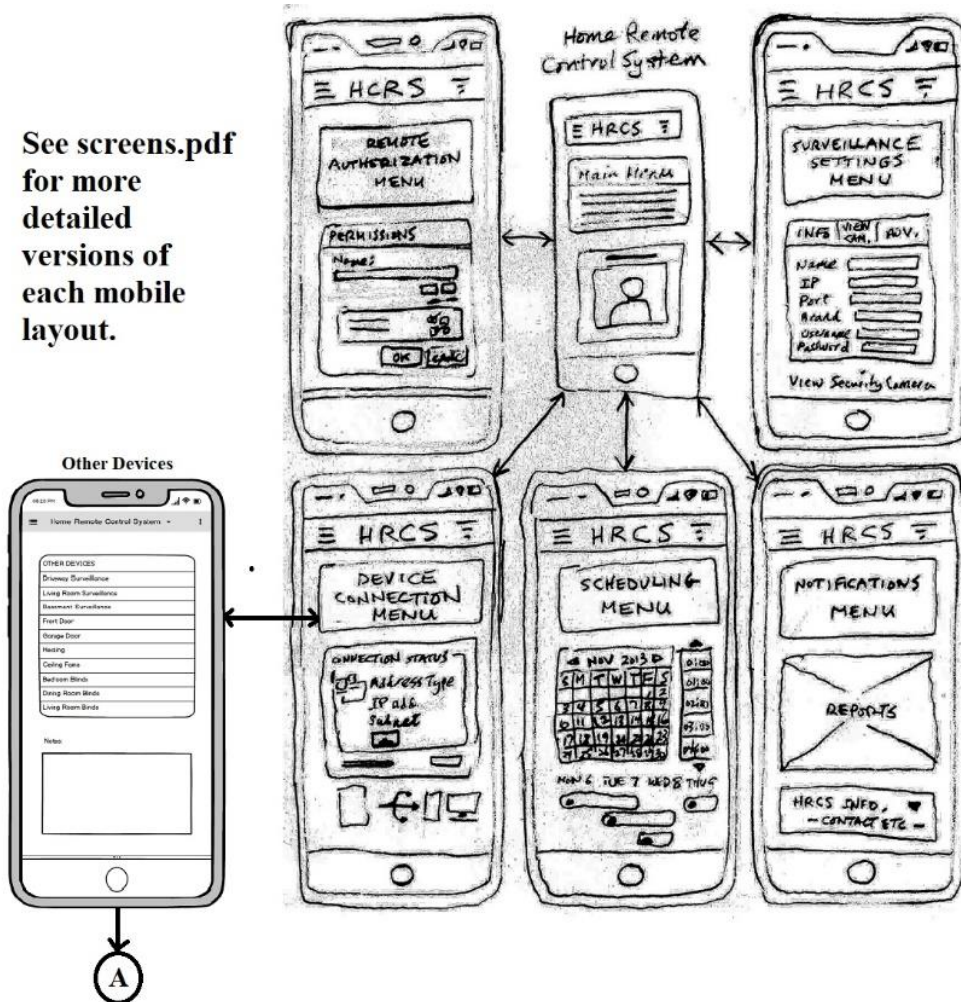
Afterwards, I scanned these drawings and connected them as shown on the next two pages. The drawings I made are associated with the work I first did with Balsamiq (see screens.pdf), as I had originally intended to use some of the elements used in the program.

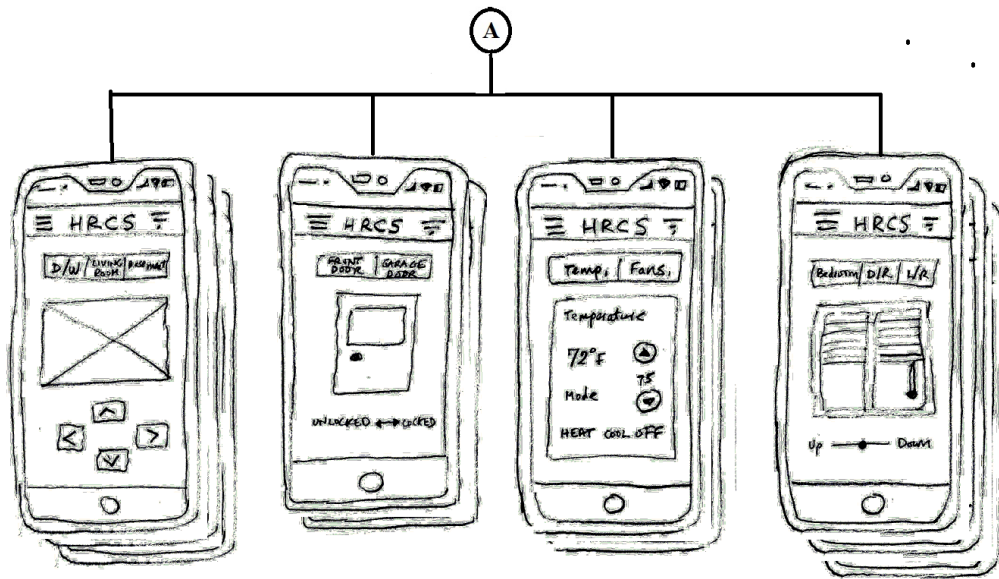


I was going to draw the same type of controls on my drawings, but instead proceeded with creating a set of mockup screens to fully define what was contained in each individual screen.

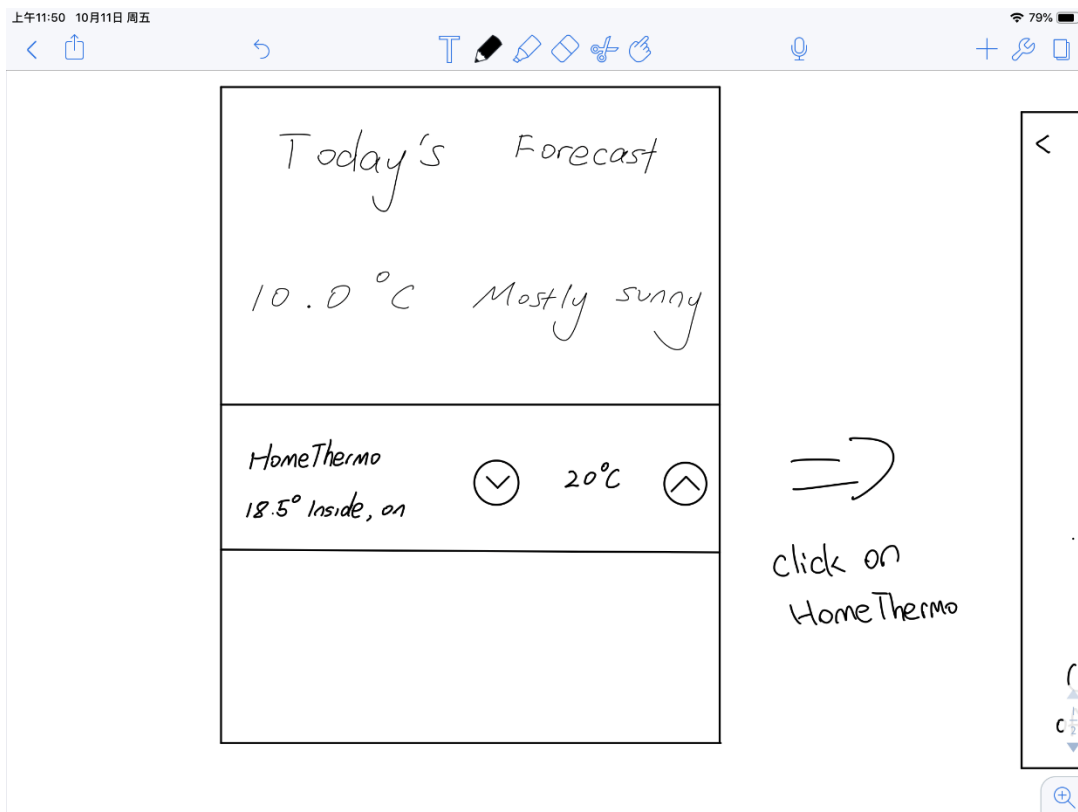
As seen in screens.pdf, I created a menu navigation based on the 5 main features. Start with the main menu as seen above the main surveillance camera (outside area). It connects to the other 5 “feature” screens. In total. There are 17 Balsamiq mockups.

See screens.pdf for more detailed versions of each mobile layout.





Mike's Drawings:





⇒
click on
HomeThermo

HomeThermo

8.5 °C

System on

⏻

⏻

off

SCHEDULE

⇒
click on
Schedule



⇒
click on
Schedule

Schedule

Options

Group Days

Monday

Wake	06:00	21 °C
Away	08:00	off
Home	18:00	21.0 °C
Sleep	22:00	16.5 °C

Tuesday

Wake	07:30	21 °C
Away	09:00	off
Home	20:30	21.0 °C
Sleep	23:00	16.5 °C

⇒
click
on
options

Schedule

Options

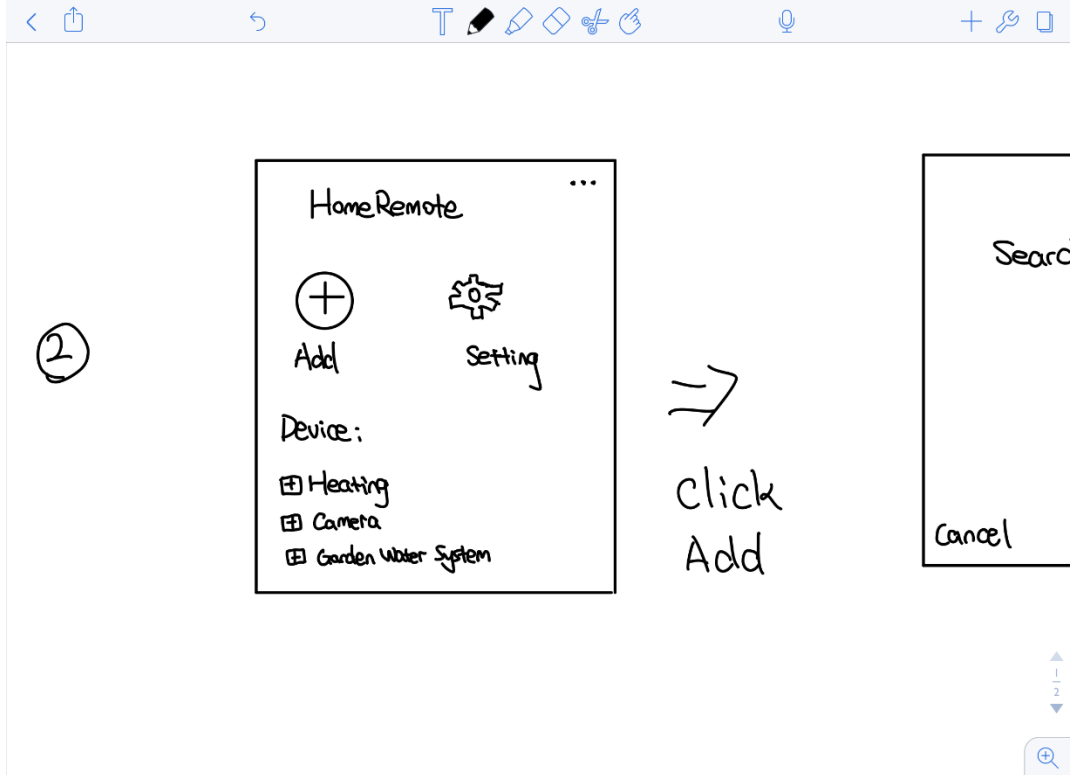
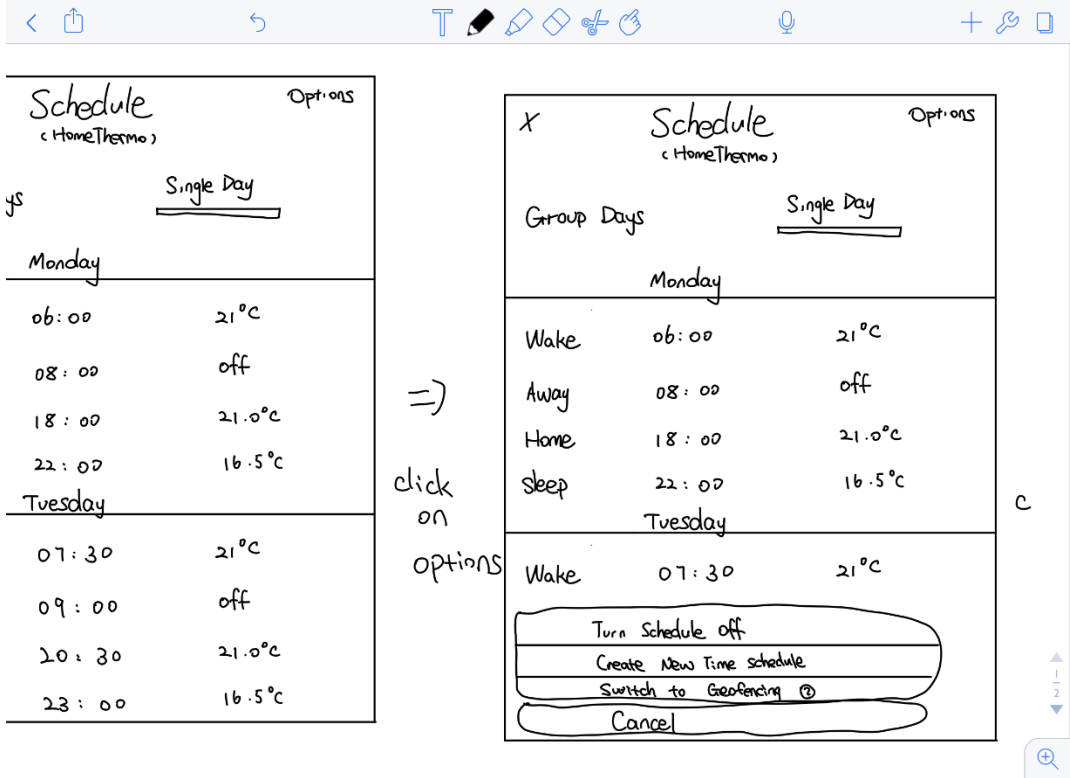
Group Days

Monday

Wake	06:00	21 °C
Away	08:00	off
Home	18:00	21.0 °C
Sleep	22:00	16.5 °C

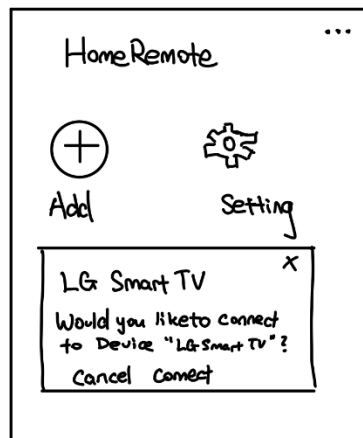
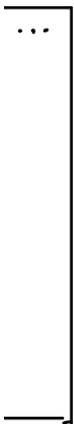
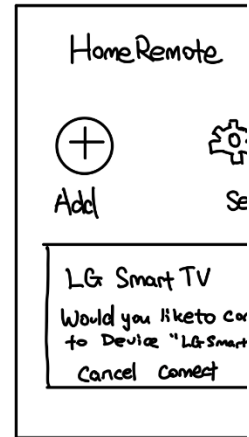
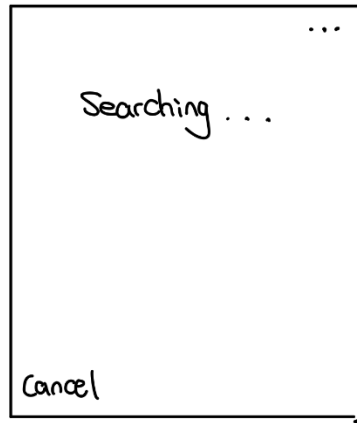
Tuesday

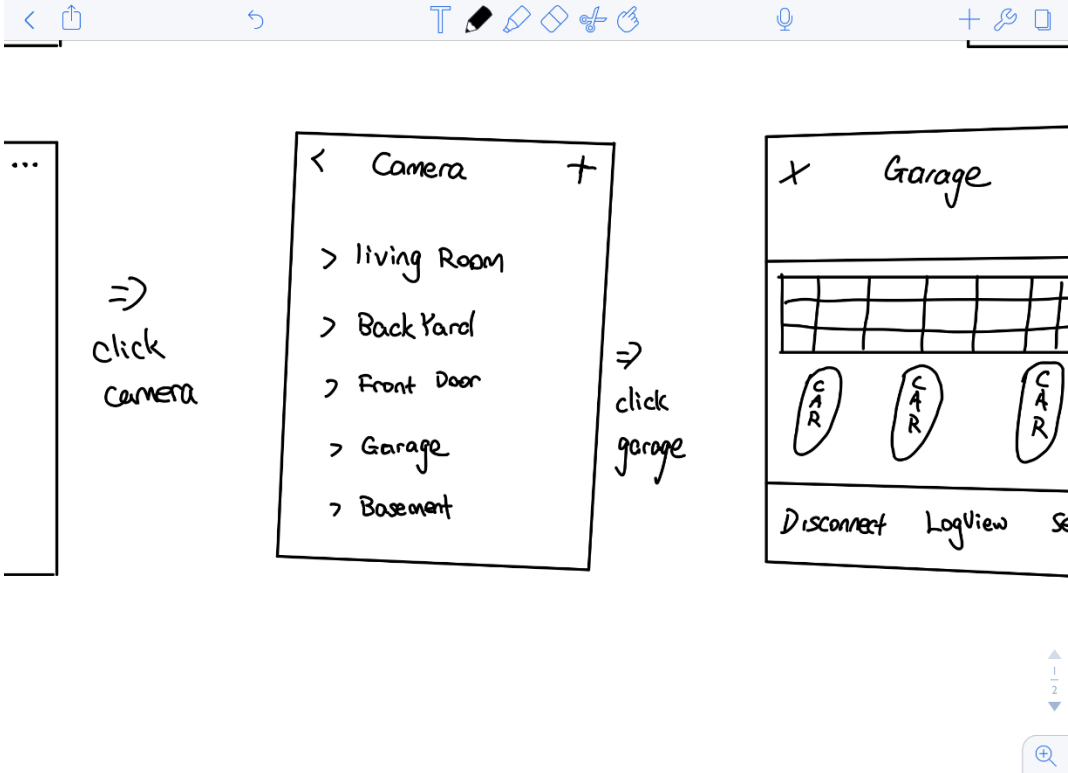
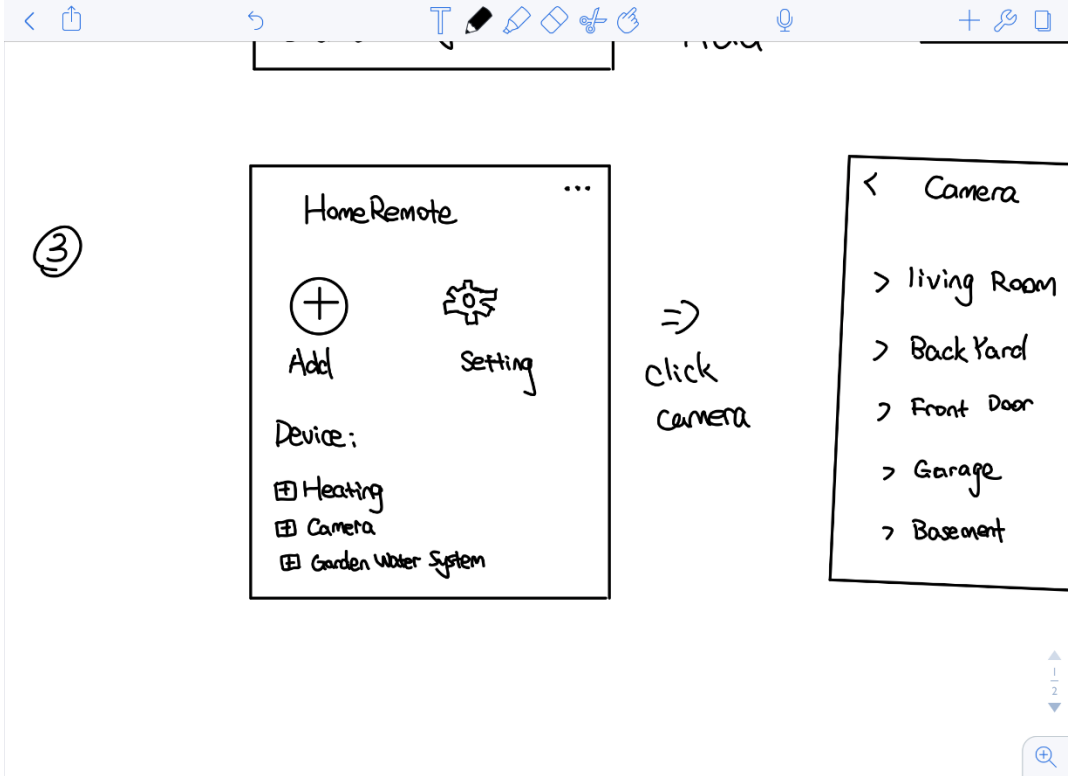
Wake	07:30	21 °C
Away	09:00	off
Home	20:30	21.0 °C
Sleep	23:00	16.5 °C

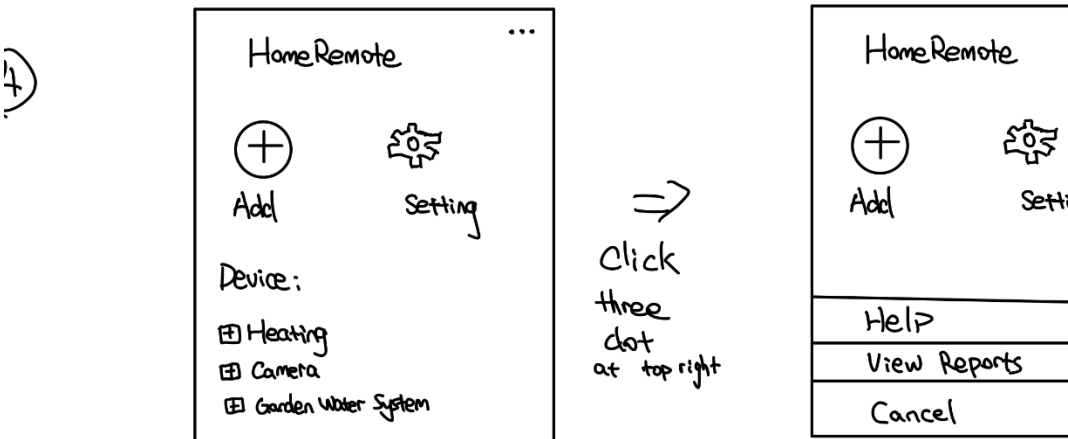
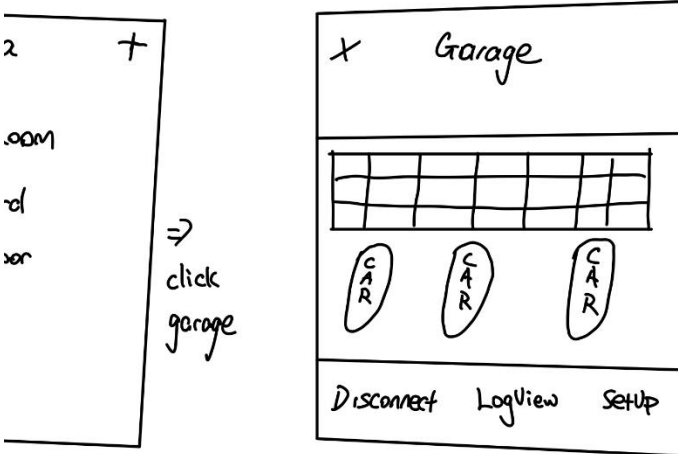




click
Add

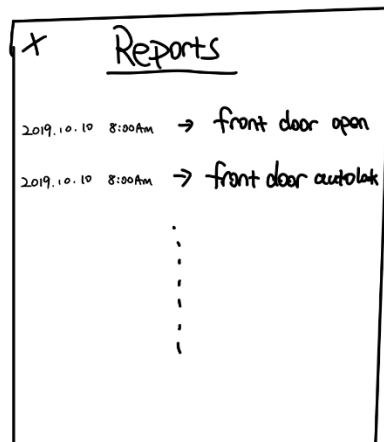
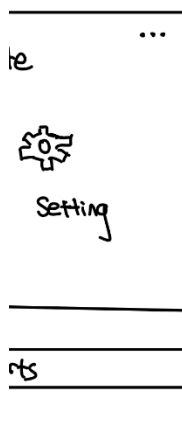
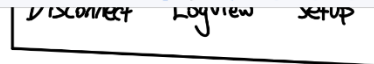
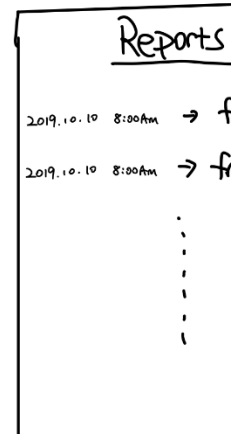
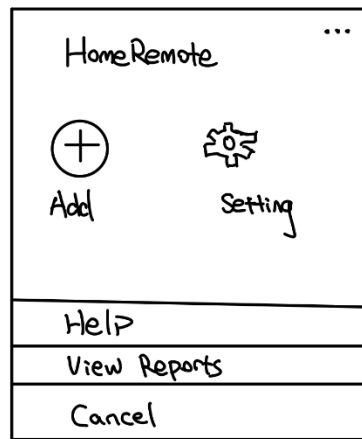




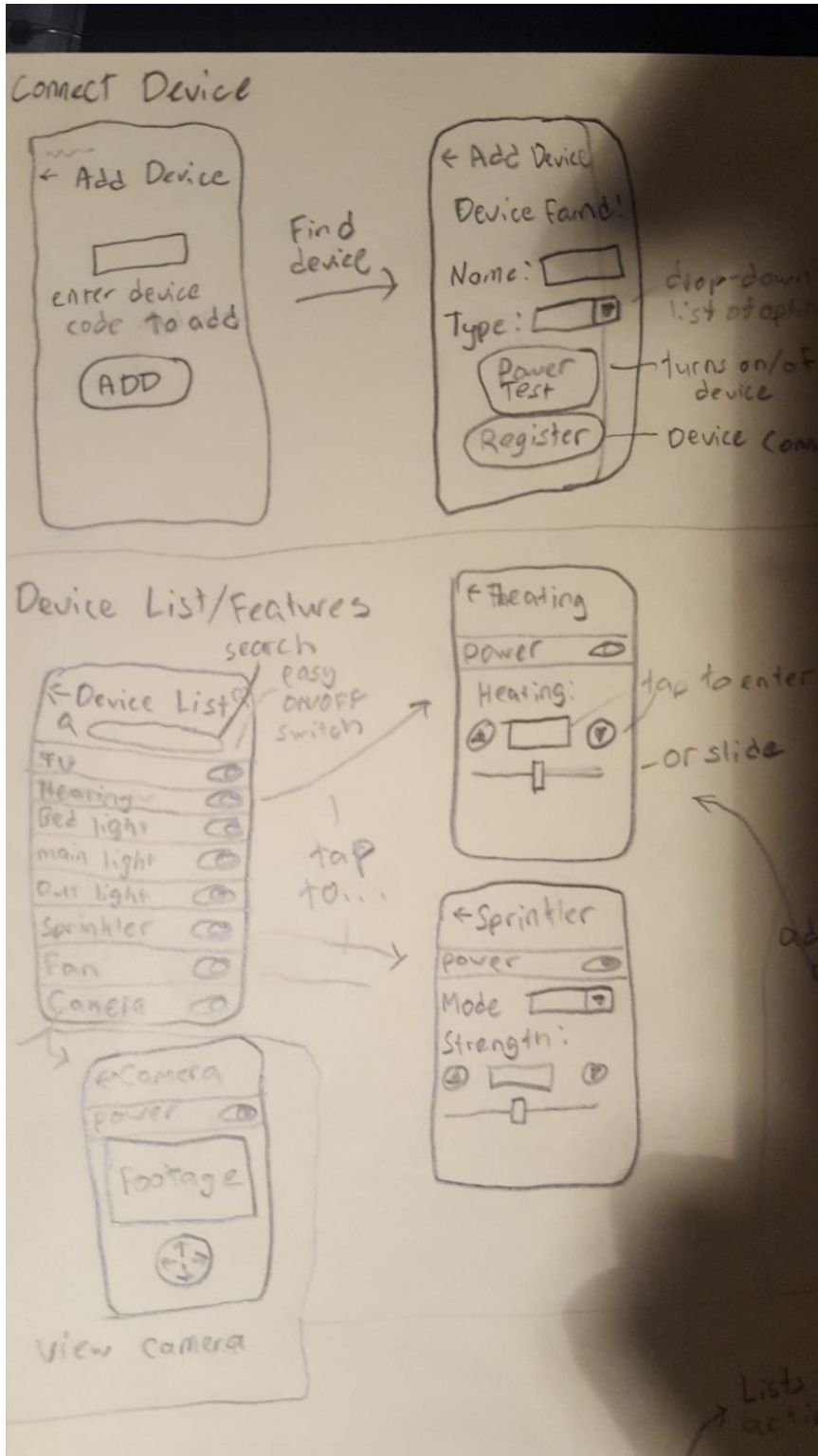


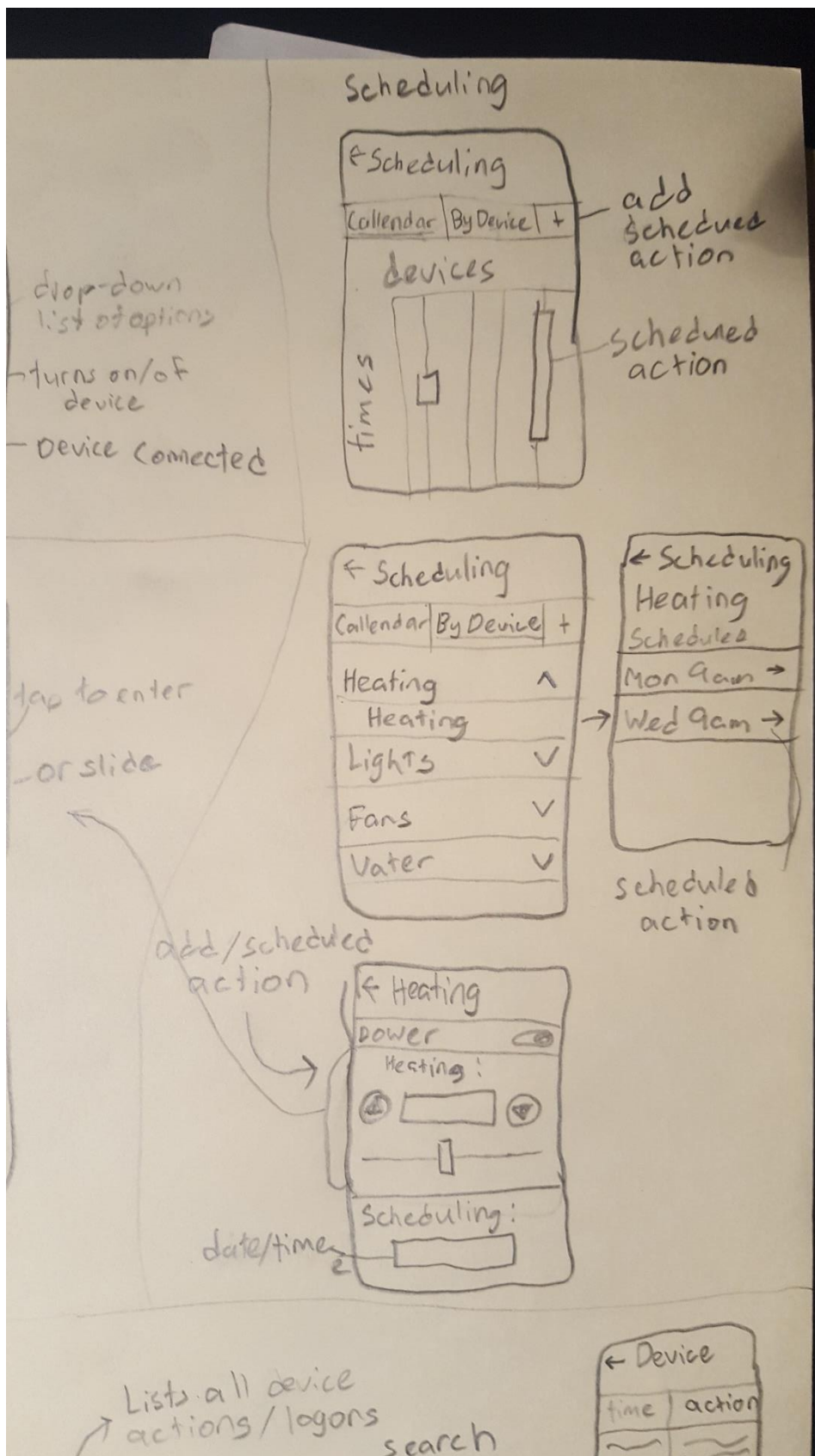


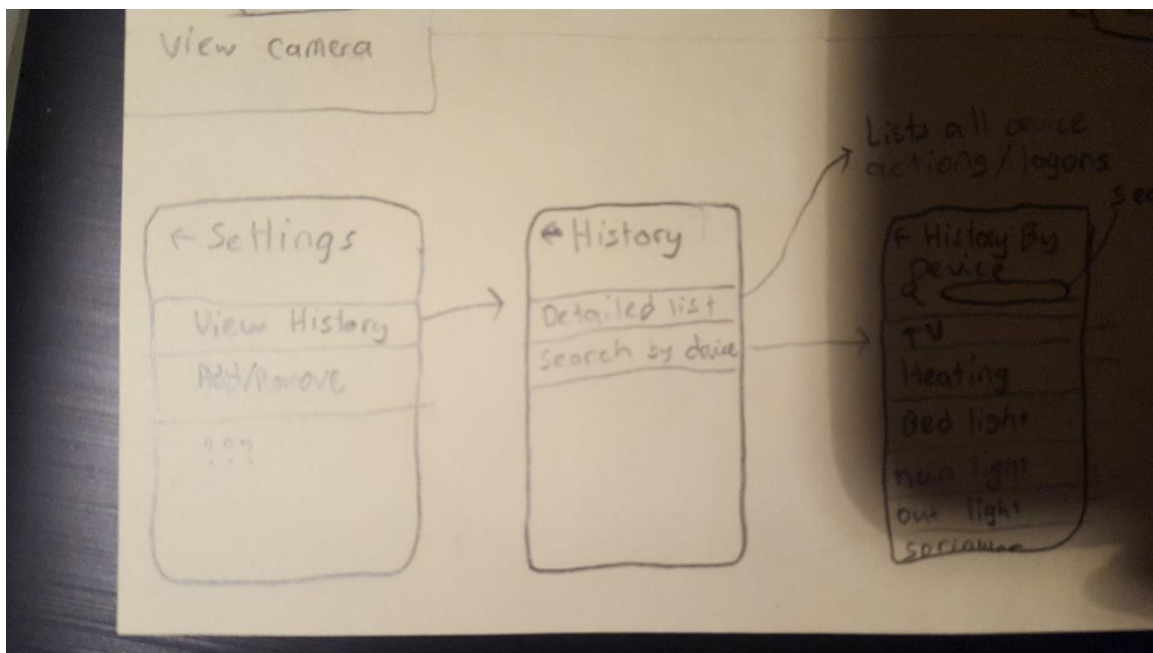
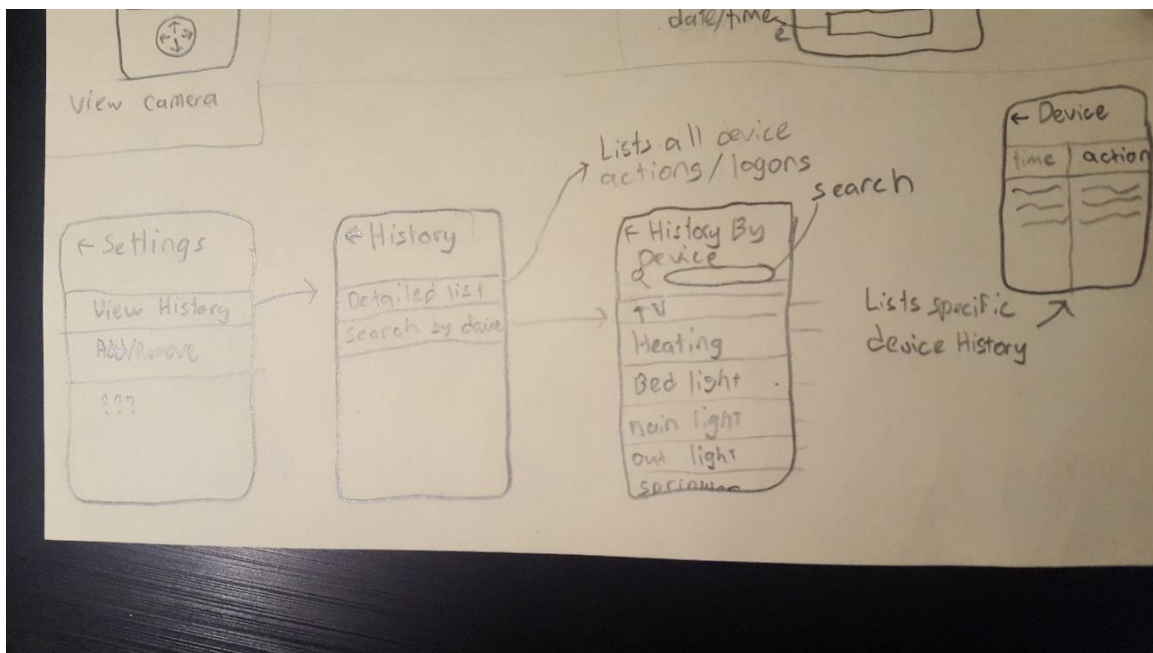
⇒
Click
three
dot
at top right



Luke's drawings:

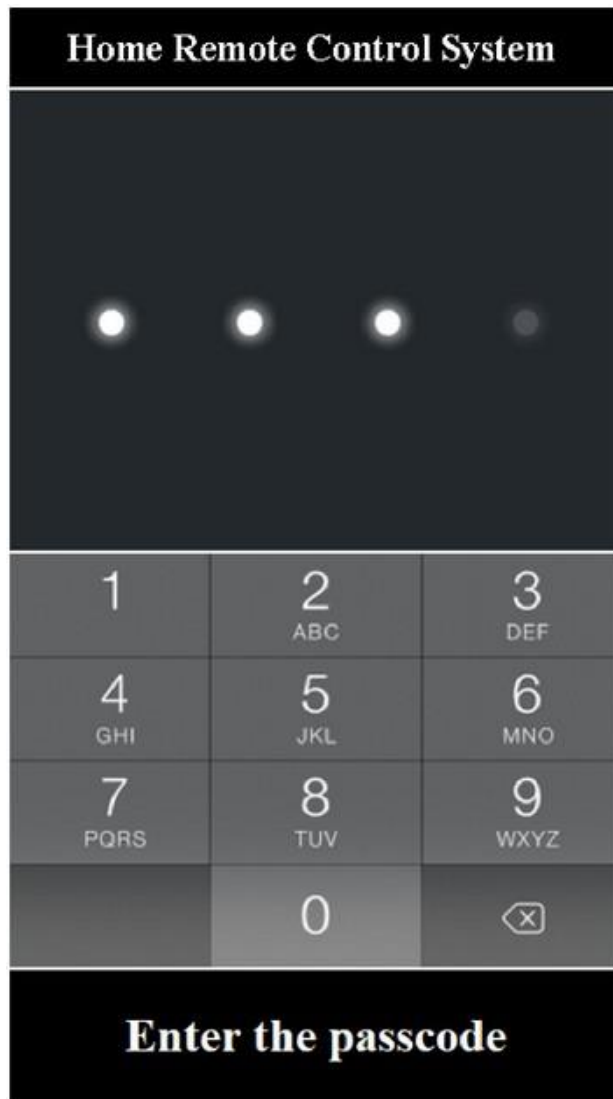


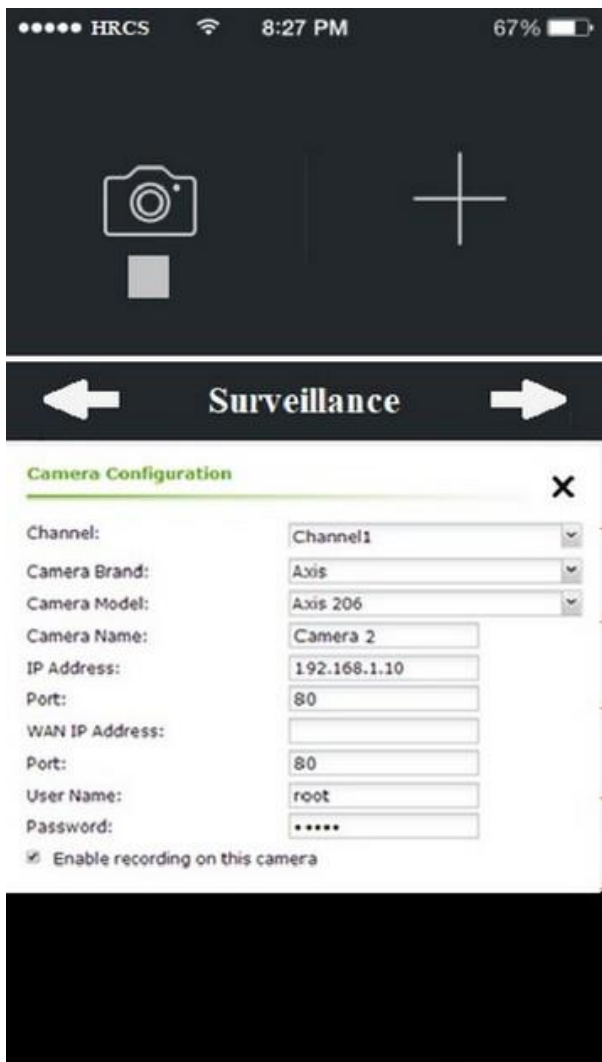
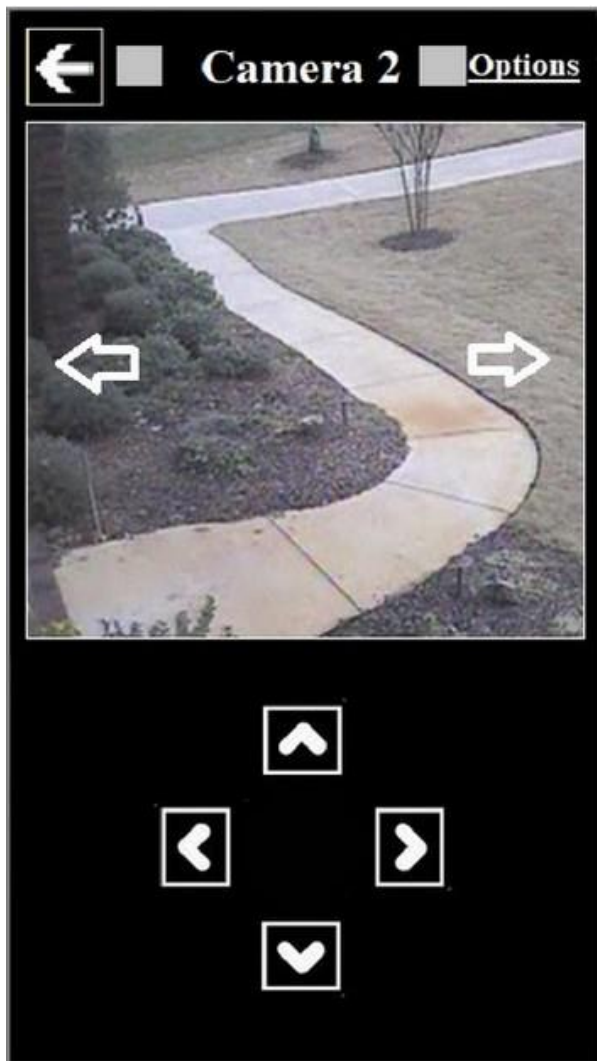




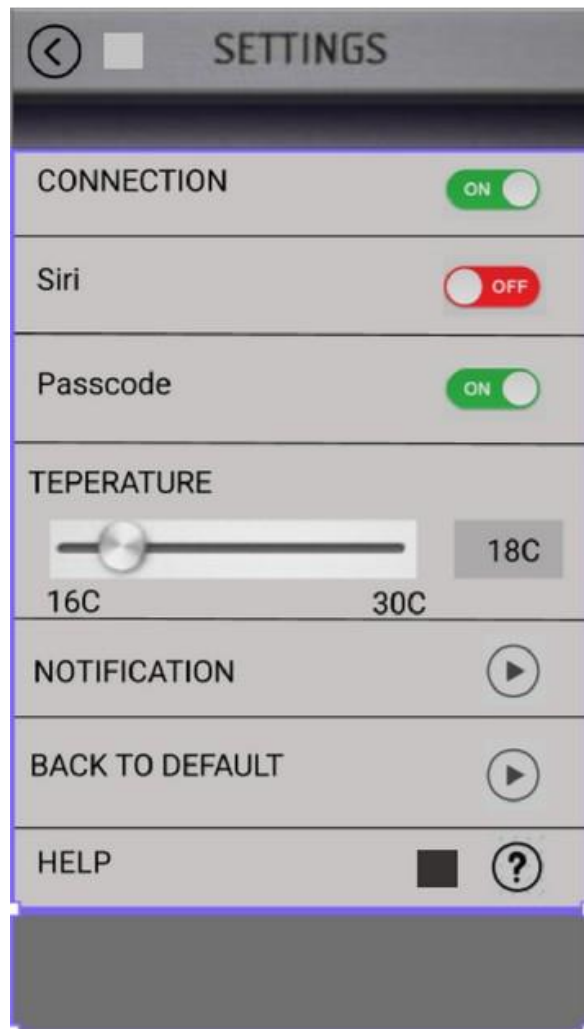
Screenshots From Iteration 2

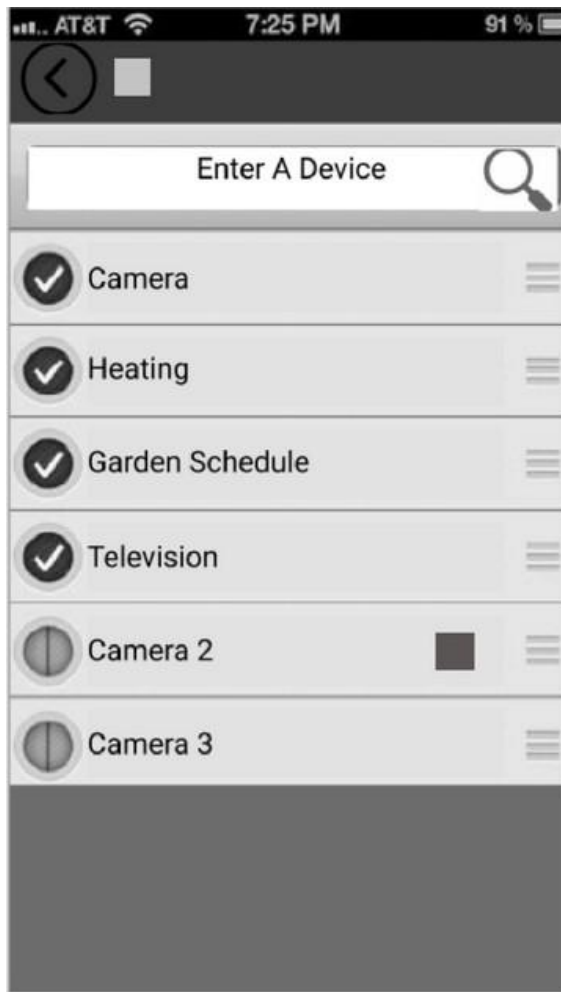
Alan's Work





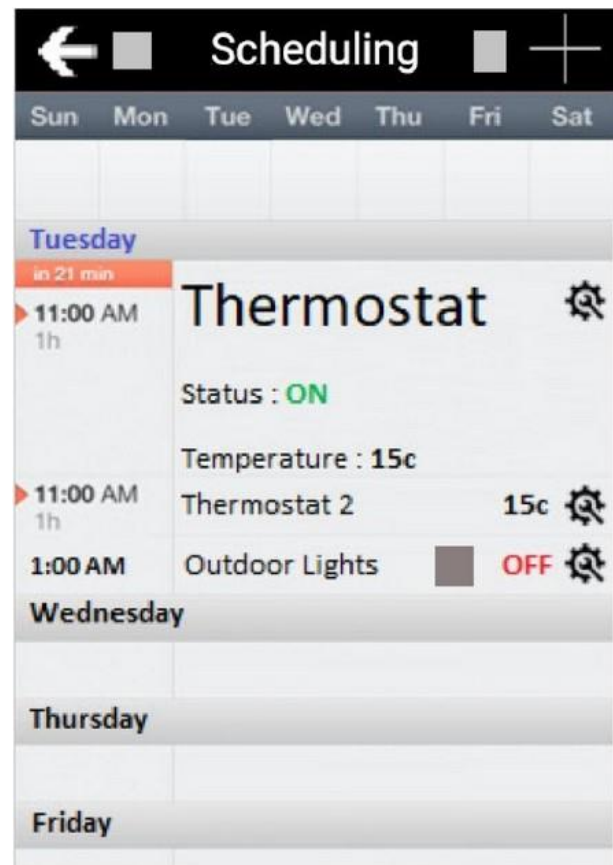
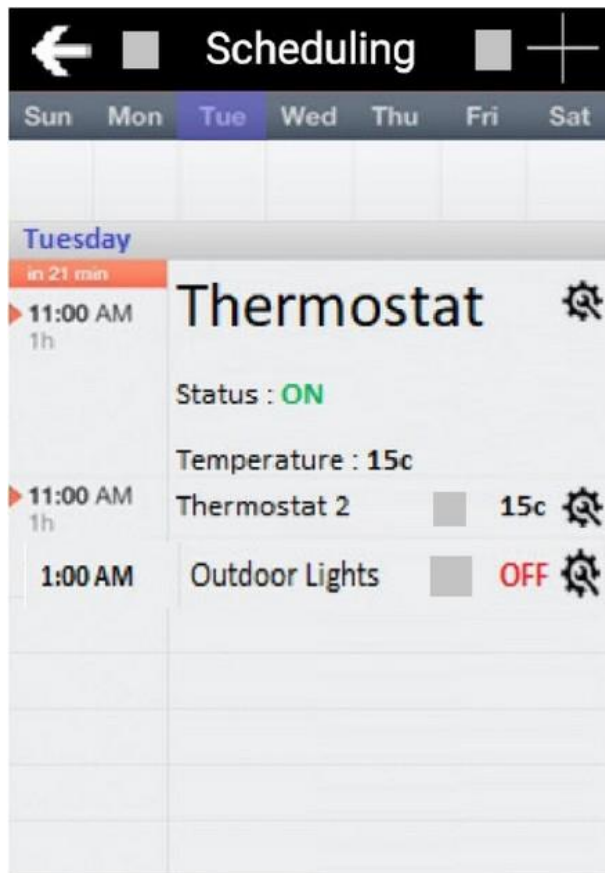
Mike's Work

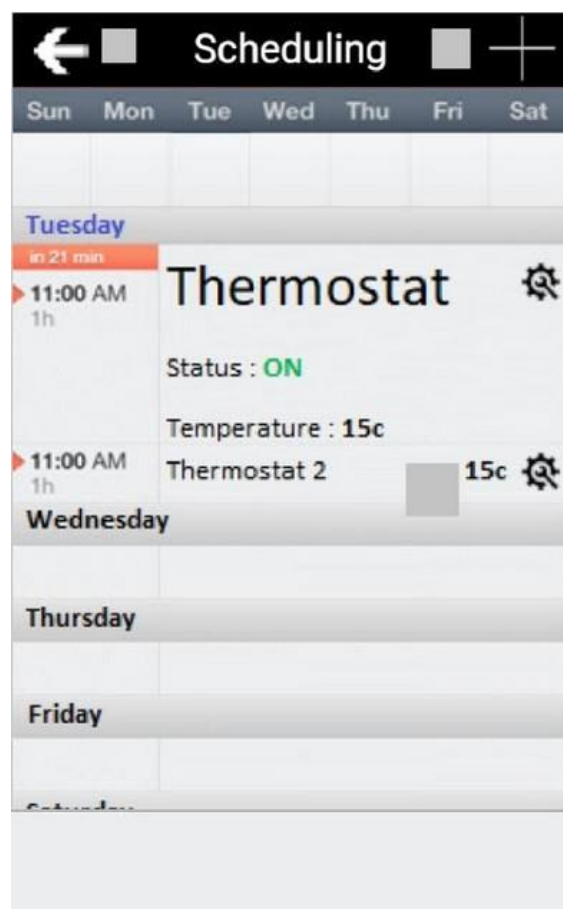
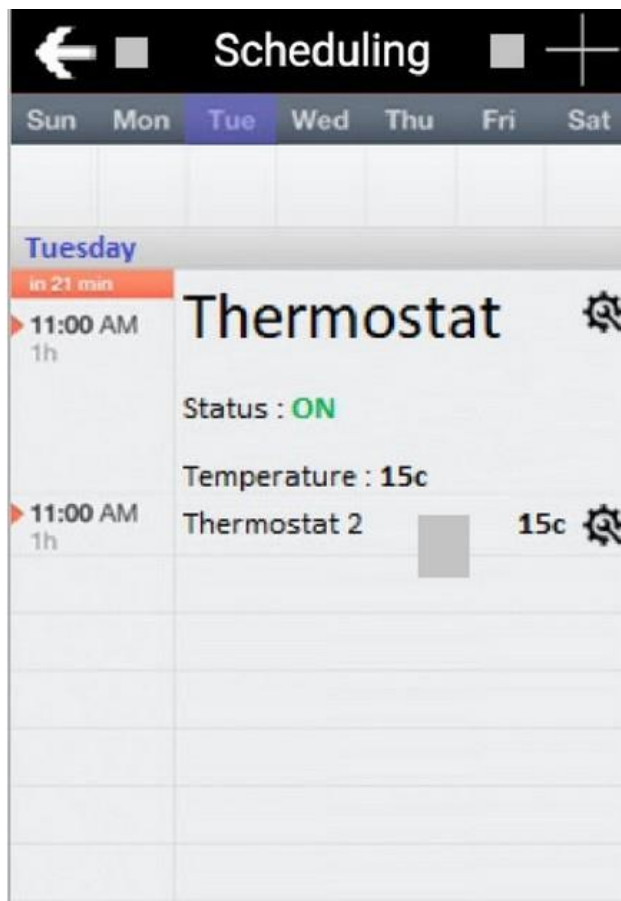






Luke's Work





 Add Event  SAVE

 Title >

 Start Tuesday - 11:00 AM >

Device >

 Status **ON**

 Settings >

 Notifications SAVE

Access

Notify me when another device accesses the Home Survelence App



Notify me when another device accesses devices linked to this App



Notify me when linked devices cannot be accessed anymore



Scheduling

Notify me when new items are scheduled by other devices



Notify me when a scheduled action fails

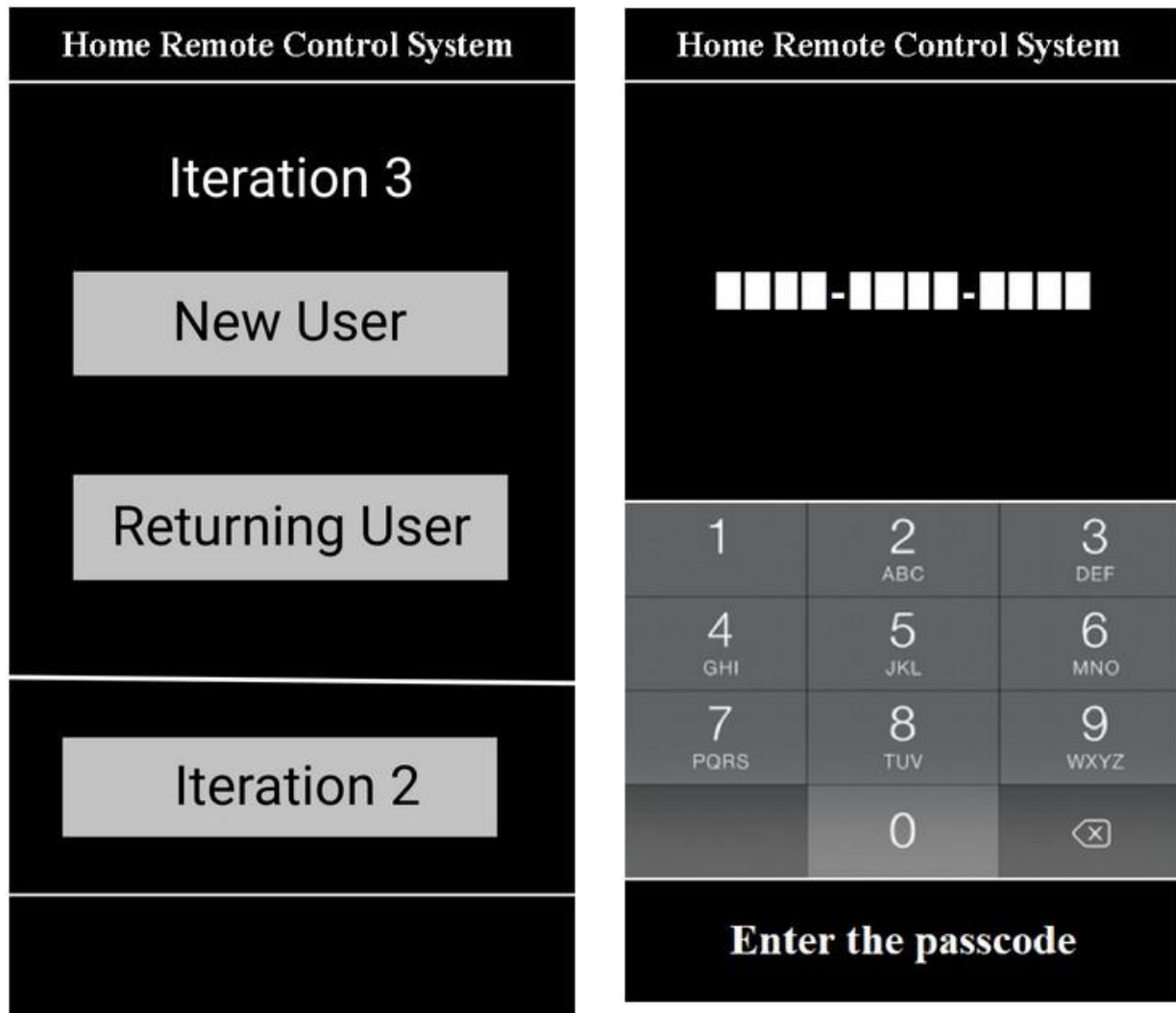


Allow notifications of scheduled actions when they're completed



Screenshots From Iteration 3

Alan's Work



Home Remote Control System

4615-1614-8395

1	2 ABC	3 DEF
4 GHI	5 JKL	6 MNO
7 PQRS	8 TUV	9 WXYZ
	0	<X

Thank you. Please wait ...

Home Remote Control System

You cannot proceed without setting up the default devices,

For help on setting them up, consult our website. To proceed, you must save your settings.

Smart TV

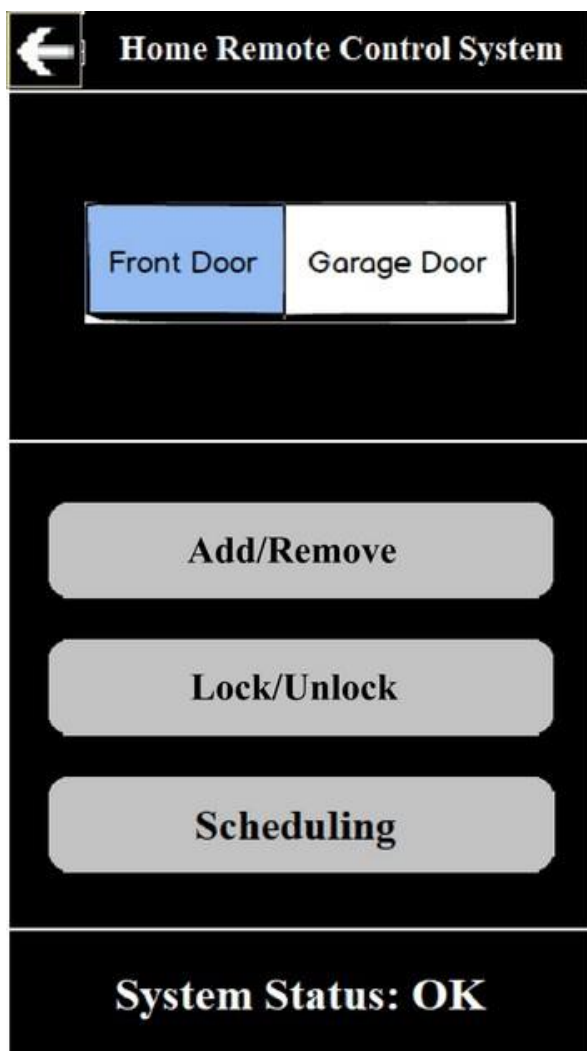
Stereo

Surveillance

Other

Press escape to return back

Choose the default devices



 Home Remote Control System

Outdoor

Indoor

Add/Remove

Turn On/Off

Scheduling

System Status: OK

Home Remote Control System

Which type of device do you wish to control?

Doors

Heating

Lighting

System Status: OK

Home Remote Control System

Running for the first time. Please setup Wi-Fi and connect primary devices.

Choose a Network...

Other...

Connect to Wi-Fi

Cancel

QWERTYUIOP

ASDFGHJKL

↑ZXCVBNM↵

?123, _ . ←

Home Remote Control System

Wi-Fi

ON

You have chosen "MyNetwork"

MyNetwork

Other...

Blinds

Doors

Heating

Lighting

Smart TV

Stereo

Surveillance

Other

Save

Help

Choose the default devices

Home Remote Control System

Setup is incomplete.
Preparing to exit.

For support, call
778-915-7543
hrcs@gmail.com

Preparing to exit ...

Restart

Home Remote Control System

Blinds

Doors

Heating

Lighting

Smart TV

Stereo

Surveillance

Other

Change Wi-Fi

Change Default Devices

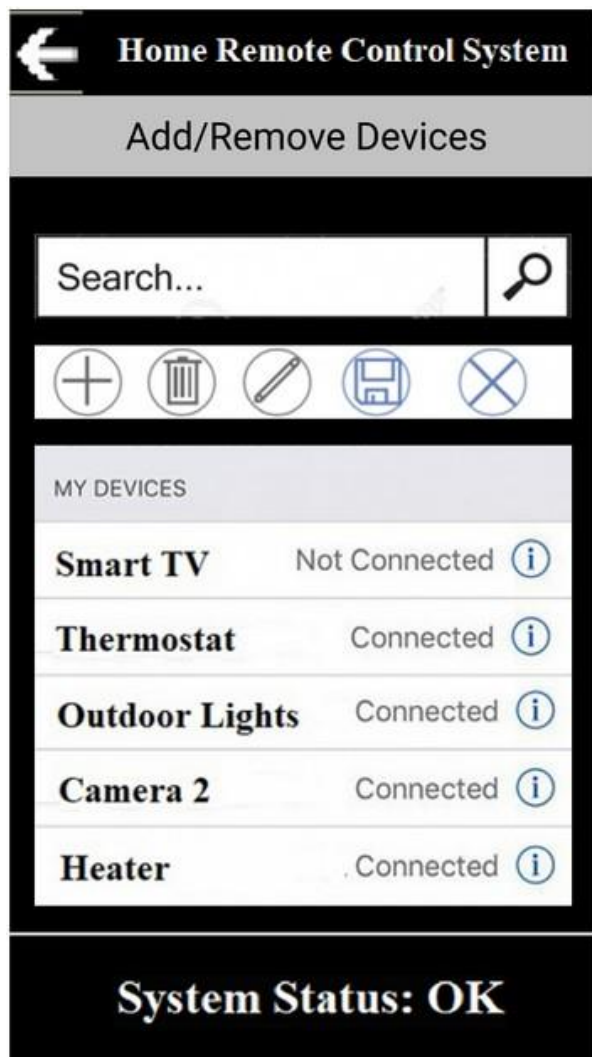
Add/Remove Devices

Device Control

Scheduling

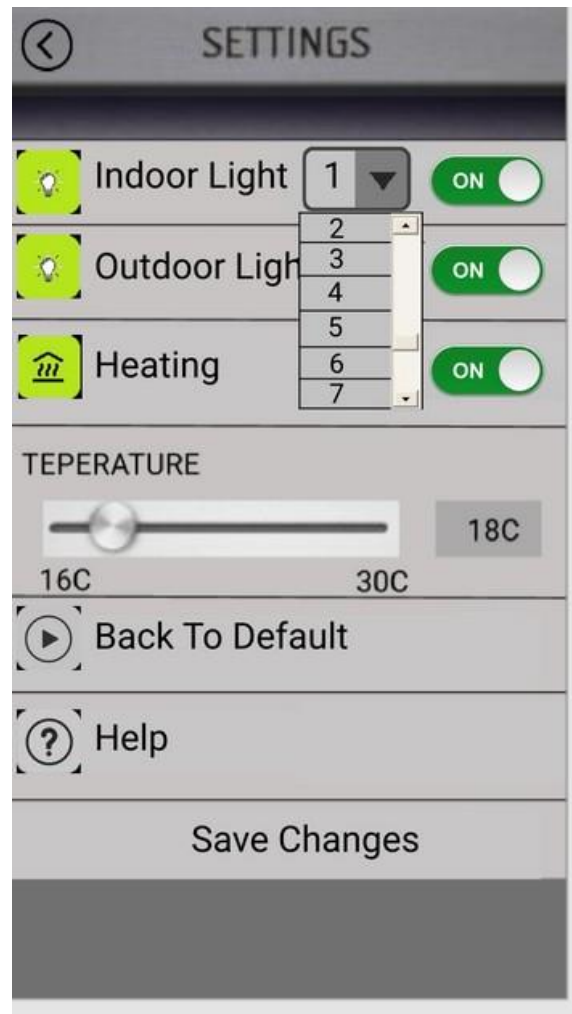
Notifications

System Status: OK

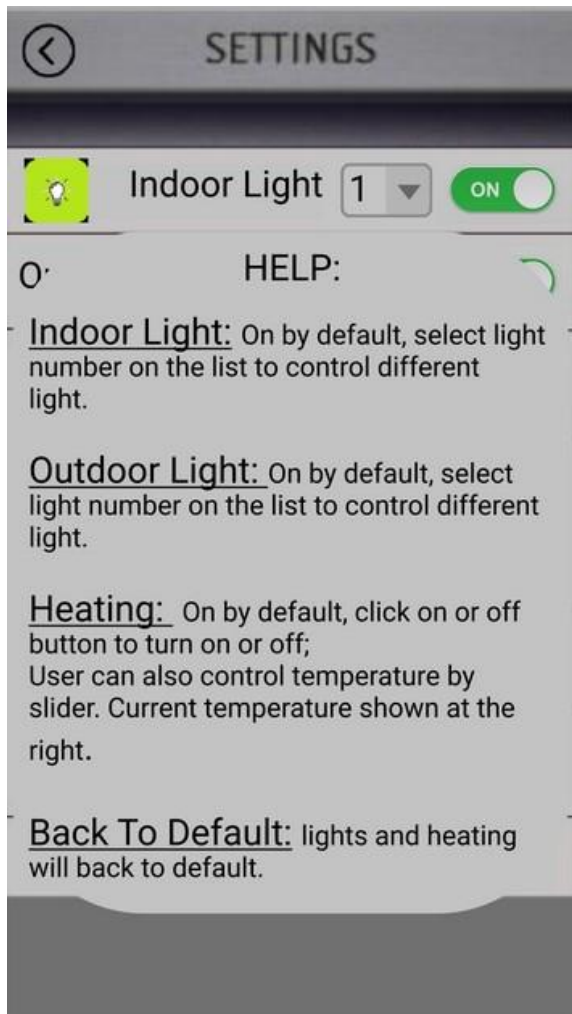


Mike's Work



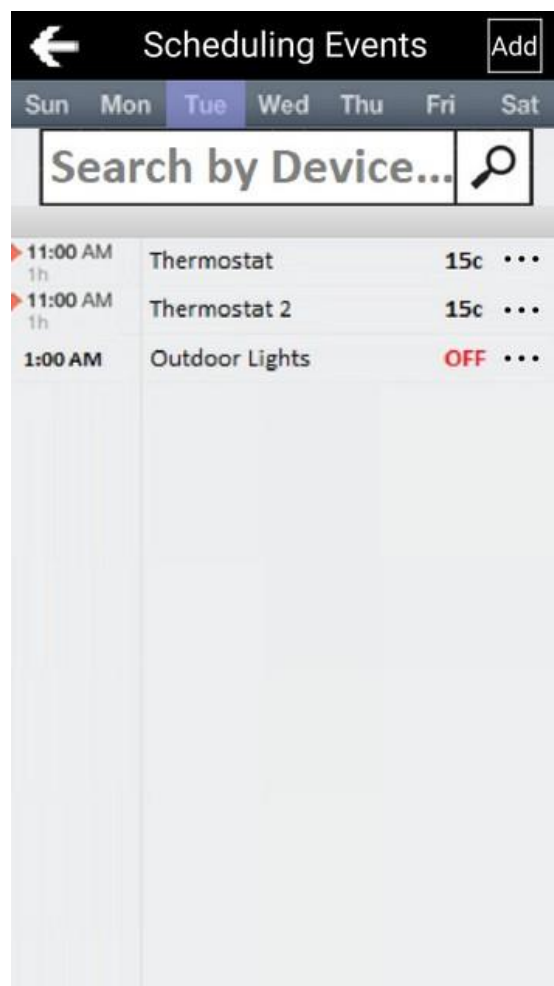
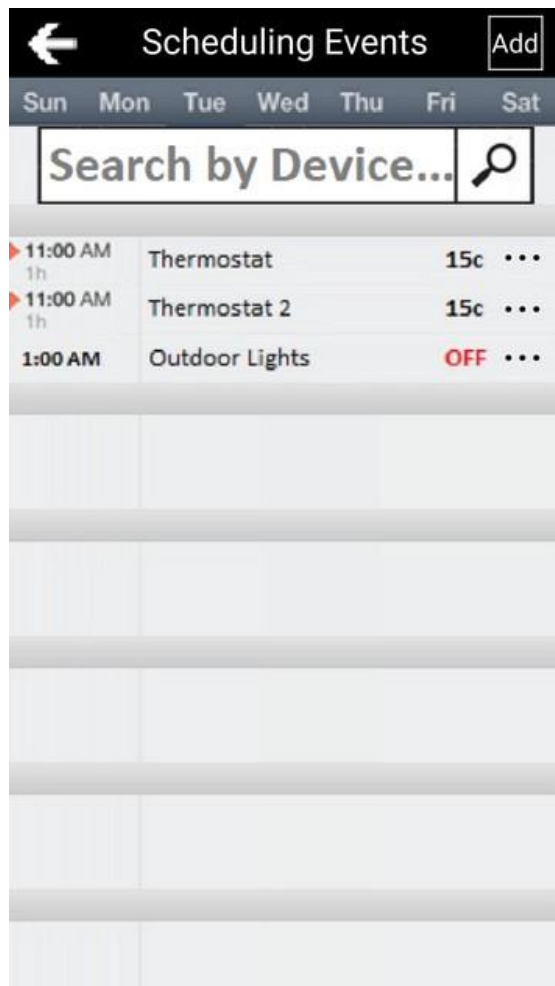


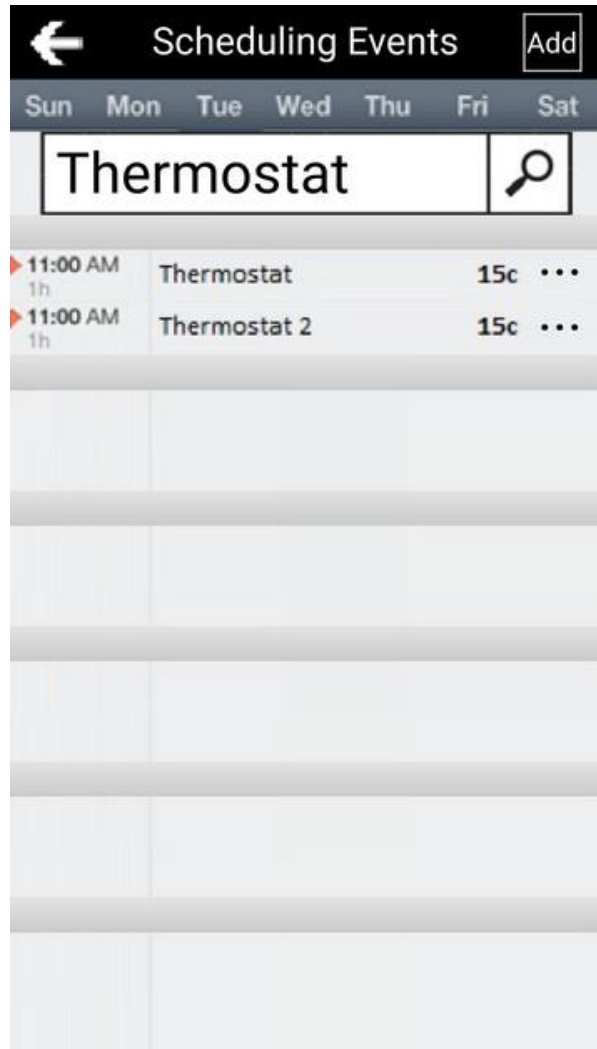
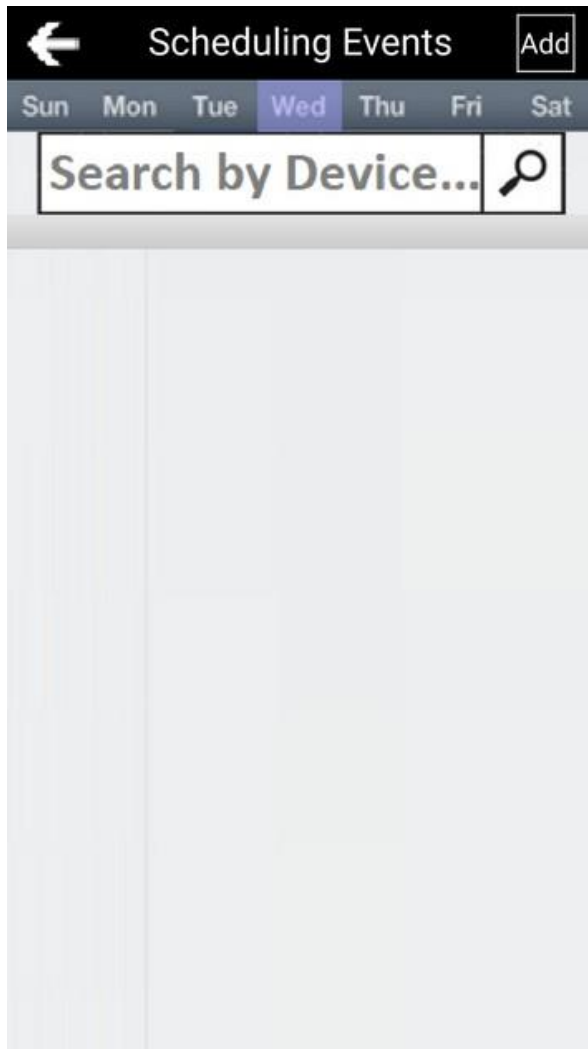


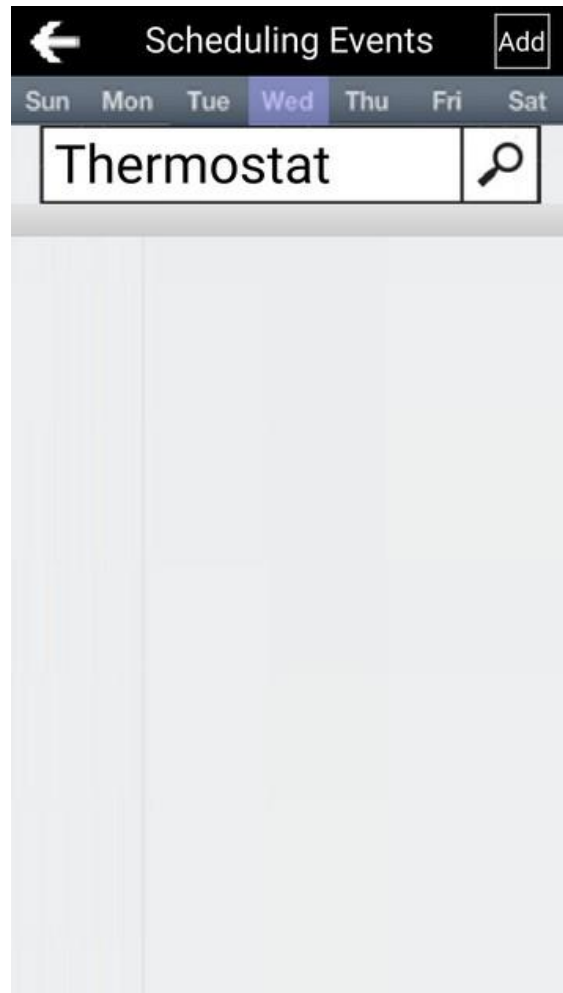
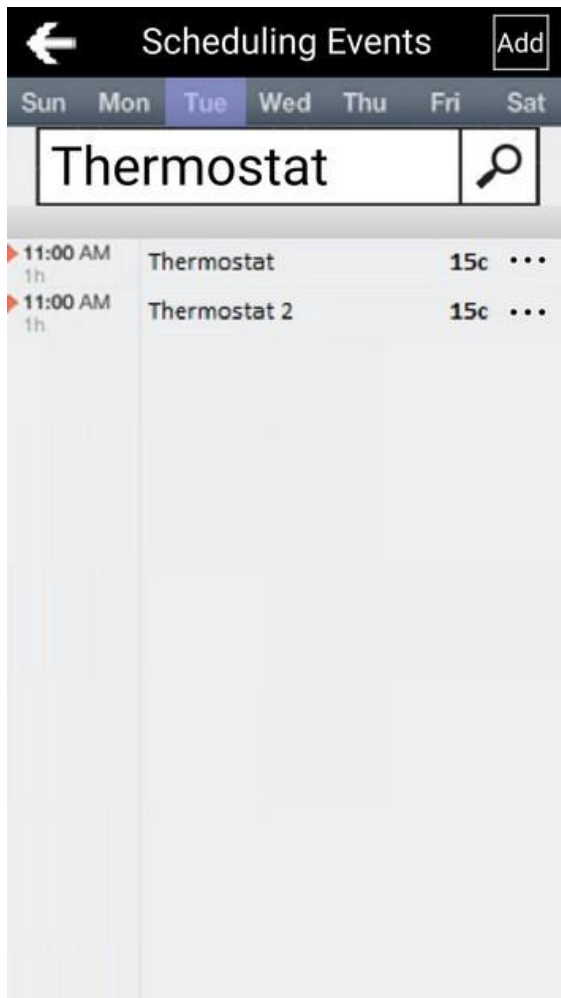




Luke's Work







User Feedback

Person 1

Task 1: Schedule the Lights to turn off at 8 tonight

What difficulties did you have in performing this task?

Main menu is fine, scheduling is a pain, but couldn't find the lighting system right away, but thinks it's fine. The problem lies in the scheduling page. It is better to have the title say "Scheduling Events". That way they know they're setting up events for the scheduling system. Specific device navigation should be included.

Anything you wish could be improved or simplified?

As a user, I'd like to see only the main page. Make the things at the top appear smaller. Only the menu is wanted for the main menu. Would prefer is some settings appeared in their category. Finds them a distraction. Prefers the top part of main menu to be placed in Surveillance.

How do you feel about how information is visually presented?

They were fine. The settings and titles are appropriately labeled (minus the main one).

Would you prefer to have any additional messages, pop-ups, notifications appear upon successfully creating or editing a scheduling event?

Yes, I would like to see some messages that confirm my action is done.

How do you feel about the organization of the scheduling system? Do you feel anything could be altered?

Wants it to be simple. Wants to not open as many pages to edit the scheduling of a single device. Wants devices to be easily accessed from the scheduling menu.

Task 2: Change the name for Camera 2

What difficulties did you have in performing this task?

Didn't know of saving. Too many pages. Could be simplified.

Anything you wish could be improved or simplified?

It is fine. (Didn't know of the quick option/settings)

How do you feel about how information is visually presented?

It was okay, since I have experience with this kind of thing. Common procedure.

Would you wish for an easier way to access the cameras when compared to other devices?

No, it's okay. In business terms, it feels more important, but as a home user... yes, it would be just as important. Final answer is Yes. If I was wanted a single camera to quick-view, I feel I would like the option.

How much do you feel you understand the use of the camera based on what you've seen?

It is obvious. No record option is weird though. I understand that the arrows are to move the camera, but I'd like to have quick access to the recording option and record option. Should implement recording. Side arrows are not apparent that is changes the camera. Should be mentioned more clearly. Possibly even quick names.

Person 2

Task 1: Schedule the Lights to turn off at 8 tonight

What difficulties did you have in performing this task?

I'd like to press once and get to where I can change the setting, but where do I click? The word "scheduling", the gearbox? When I arrived at Scheduling, outdoor lights are "off." Does 1:00 am mean that they turn on or off at that time? Thinking I need to change the time, WHERE do I change the time? It seems I cannot complete the task.

Anything you wish could be improved or simplified?

I think the current day should be displayed, as well as the time. I cannot complete the task easily, for I do not know where to click on the days that do drop down. A calendar associated with the current day/month would be helpful. All I see are a few days displayed for a non-specified week.

How do you feel about how information is visually presented?

I think that the user cannot complete this task as there is no drop down for selection, no day selection (rotating options), no save and no confirmation.

Would you prefer to have any additional messages, pop-ups, notifications appear upon successfully creating or editing a scheduling event?

Yes, I think it should inform me when I have completed a task successfully.

How do you feel about the organization of the scheduling system? Do you feel anything could be altered?

It needs work. I would not use it, and as a result, perhaps even the app.

Task 2: Change the name for Camera 2

What difficulties did you have in performing this task?

I was left guessing as to how to save the setting on the configuration page, let alone change it. Not OK. The screen leaves me wondering what the right actions are, as each step in completing it seems to not be readily available on the screen. Choose device, choose time/day and save change.

Anything you wish could be improved or simplified?

Within one screen, I think there SHOULD be a spot to turn on, add, modify or delete with an appropriate controls.

How do you feel about how information is visually presented?

There is a lot of information on the configuration screen to be dealt with. As well. I have to navigate to the necessary screen. I wish I could just click on a configuration button within the camera screen and be led to exactly where I need to be to alter the name of the camera. Perhaps a pop up.

Would you wish for an easier way to access the cameras when compared to other devices?

No, not really.

How much do you feel you understand the use of the camera based on what you've seen?

I have seen these types of controls before, so am used to them. The screen just doesn't have all that I expect. Cameras have playback functionality. That is missing, for one usually wants to review footage, not just view what is currently shown.

Person 3

Task 1: Schedule the Lights to turn off at 8 tonight

What difficulties did you have in performing this task?

What lights? Outdoor lights? I see “Outdoor lights.” So, do I press that? Everything associated with this task is not on the screen I arrived at after I pressed “scheduling”; no time selection, no calendar for setting it tonight as opposed to tomorrow — and turning something on/off.

Anything you wish could be improved or simplified?

There is no indication of the time or day, as related to the content on screen. I do not see a way to carry out this task properly and complete it.

How do you feel about how information is visually presented?

The use of fonts could use improvement. Why the use of a large font size that is bigger than other areas on the screen. What is the significance of that? I think the fonts should all be the size. To me, the bigger font size says that something is more important than another.

Would you prefer to have any additional messages, pop-ups, notifications appear upon successfully creating or editing a scheduling event?

No pop-ups please. I hate the use of them even on websites.

How do you feel about the organization of the scheduling system? Do you feel anything could be altered?

The “Add event” screen should be related to more than just adding. Ok so I change start time ... Device? Why not just show that it is lights rather than me having to select “lights” from another screen area. This area of the app needs more work.

Task 2: Change the name for Camera 2

What difficulties did you have in performing this task?

From the “main screen,” I see nothing to do with camera 2 and am guessing that the proper pathway is via surveillance. But that camera icon could also possibly lead me where I want to go. I am thinking it is surveillance, and luckily, I arrive at camera 2. How many cameras are supported anyway?

Anything you wish could be improved or simplified?

What is the purpose of that + sign? Does it also lead to changing the name of the camera? But there seems to be an additional area to press in order to get to surveillance settings. Multiple pathways are leading there. Road signs are not so good in areas.

How do you feel about how information is visually presented?

I assume that the gear is associated changing surveillance settings, but I had no idea where that + sign would lead and whether it could help me achieve the task. When I finally end up there somehow, there is so much info on the screen associated with changing more than one thing. Too much.

Would you wish for an easier way to access the cameras when compared to other devices?

No, not really. However, I think device access is not the issue. I guess, I just change the name — and then what? Save? Auto save? There is no confirmation that the task has been completed properly. Did I do it properly?

How much do you feel you understand the use of the camera based on what you’ve seen?

What do those white arrows do? On the configuration screen, text is kind of small -- and I see more on the screen than I need to. I guess I can just click on the field and change the name and HOPE the change is OK, but there is no confirmation that it HAS been changed.

Home Remote Control System



Click on the screen.
(Password = 4560)

1

2

ABC

3

DEF

4

GHI

5

JKL

6

MNO

7

PQRS

8

TUV

9

WXYZ

0



Enter the passcode



Home Remote Control System



SURVEILLANCE





Home Remote Control System



Doorbell w/Camera





Home Remote Control System



Shortcuts Menu



Help



Notifications



SMART Security
Camera



SMART Doorbell



Home Remote Control System

HRCS Devices



Security
Camera

Camera 1



Camera 2



Camera 3



Outdoor
Lighting

Front
Yard



Back
Yard



Indoor
Lighting

Bedroom



Living
Room



Kitchen



SMART
Doorbell

Front
Door



Back
Door



SMART
TV

Bedroom



Living
Room



SMART
Thermostat

Bedroom



Living
Room



Kitchen



System Status: OK





Home Remote Control System



Camera 1



HRCS SMART
Security Camera

Update

Default Settings

Access Date: 2015/11/05

Access Time: 09:00am

Name: Camera 1

Brand: Sony

Model: Sony 1900

Enable Recording: Yes

Username: otdrligh

Password: *****

IP: 192.48.13.35

Subnet Mask: 255.255.255.0

Default Gateway: 192.48.1.1

Port: 80

System Status: OK

Home Remote Control System



HRCS Devices



**Security
Camera**

Camera
1



Camera
2



Camera
3



**Outdoor
Lighting**

Front
Yard



Back
Yard



**Indoor
Lighting**

Bedroom



Living
Room



Kitchen



**SMART
Doorbell**

Front
Door



Back
Door



**SMART
TV**

Bedroom



Living
Room



**SMART
Thermostat**

Bedroom



Living
Room



Kitchen



System Status: OK



Home Remote Control System



Camera 1



HRCS SMART Security Camera

Save

[Cancel](#)

Access Date: 2015/11/05

Access Time: 09:00am

Name:

Brand:

Model:

Enable Recording: ▼

Username:

Password:

IP:

Subnet Mask:

Default Gateway:

Port:



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

[Cancel](#)

New Event

Starts

Nov 5, 2013

5:00 PM

Ends

Nov 5, 2013

5:00 PM

Repeat

Never >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Starts

Nov 7, 2013 11:00 PM

Mon Nov 4

8

45

Tue Nov 5

9

50

Wed Nov 6

10

55

AM

Thu Nov 7

11

00

PM

Fri Nov 8

12

05

Sat Nov 9

1

10

Sun Nov 10

2

15

Ends

Nov 5, 2013

5:00 PM

Repeat

Never >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Starts

Nov 7, 2013 11:00 PM

Ends

Nov 8, 2013 7:00 AM

Previous Day Tue Nov 5	Hour 4	Minute 45	
Wed Nov 6	5	50	
Thu Nov 7	6	55	
Fri Nov 8	7	00	AM
Sat Nov 9	8	05	PM
Sun Nov 10	9	10	
Mon Nov 11	10	15	
Next Day			

Repeat

Never >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

[Cancel](#)

New Event

[Save](#)

Starts

Nov 7, 2013 11:00 PM

Ends

Nov 8, 2013 7:00 AM

Repeat

Never >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Save

Starts Nov 7, 2013 11:00 PM

Ends Nov 8, 2013 7:00 AM

Repeat Weekly >

Never

Every Day

Every Week ☒

Every 2 Weeks

Every Month



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Save

Starts

Nov 7, 2013 11:00 PM

Ends

Nov 8, 2013 7:00 AM

Repeat

Weekly >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Save

Starts

Nov 7, 2013 11:00 PM

Ends

Repeats

You have scheduled
the lighting in the living
room. Press “HRCS
Devices” to continue.

HRCS Devices



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Save

Starts

Nov 7, 2013 11:00 PM

You have scheduled
the lighting in the living
room. Press “HRCS
Devices” to continue.

HRCS Devices



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Save

Starts Nov 7, 2013 11:00 PM

You have scheduled
the lighting in the living
room. Press “HRCS
Devices” to continue.

HRCS Devices



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Starts

Nov 5, 2013

5:00 PM

Ends

Nov 5, 2013

5:00 PM

Channel

< 11 >

Repeat

Never >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Starts

Nov 7, 2013 11:00 PM

Mon Nov 4

8

45

Tue Nov 5

9

50

Wed Nov 6

10

55

AM

Thu Nov 7

11

00

PM

Fri Nov 8

12

05

Sat Nov 9

1

10

Sun Nov 10

2

15

Ends

Nov 5, 2013 5:00 PM

Channel

< 11 >

Repeat

Never >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

Cancel

New Event

Starts

Nov 7, 2013 11:00 PM

Ends

Nov 8, 2013 7:00 AM

Previous Day	Next Day	Next Day
Tue Nov 5	4	45
Wed Nov 6	5	50
Thu Nov 7	6	55
Fri Nov 8	7	00 AM
Sat Nov 9	8	05 PM
Sun Nov 10	9	10
Mon Nov 11	10	15
Next Day	Next Day	Next Day

Channel

< 11 >

Repeat

Never >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

[Cancel](#)

New Event

Starts Nov 7, 2013 11:00 PM

Ends Nov 8, 2013 7:00 AM

Channel < 11 >

Repeat Never >



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

[Cancel](#)

New Event

Starts Nov 7, 2013 11:00 PM

Ends Nov 8, 2013 7:00 AM

Channel < 11 >

Repeat [Weekly >](#)

Never

Every Day

Every Week 

Every 2 Weeks

Every Month



Home Remote Control System



SCHEDULING

November 5, 2013 – 5:00 PM

[Cancel](#)

New Event

Starts Nov 7, 2013 11:00 PM

Ends Nov 8, 2013 7:00 AM

Channel < 11 >

Repeat Weekly >

User Feedback

User 1

User 1 explored around the app and said that some areas that looked like buttons did not function like buttons. He said that some people may attempt to click these “button” areas. As well, when he arrived at the scheduling area, he wondered where to enter the time as it wasn’t obvious (the plus sign). This problem would occur again with other users, and I had to give him a hint as well. Note that this is the 2nd version of my scheduling area, and was inspired by Apple. Even with Apple, it is not always apparent what one should do. Alas with Apple, data is automatically updated, but the user felt that the “save” functionality was missing, as did others following him. What is even more important, is letting the customer know that what they were trying to achieve *has* been achieved -- and this is still missing.

Given the 2nd task of turning the security camera off, it wasn’t immediately evident how it should be turned off in the drop down area (p. 21 of 40 in HRCS_Before). I think the user was looking for a single on/off switch; instead, he saw a drop down with ON, OFF and DISABLE options. For one, he thought that the drop-down buttons were too small and that the *important* buttons should be at the top, rather than at the bottom. As for the device menu at the top of scheduling, he thought that it did not stand out enough (use of wrong color), and should be larger – or completely eliminated (I side towards the latter). He also said the button should not be ½ way across as it is “kind of not obvious” (full button, not half button).

In my third iteration, I created an introduction and used it just once as he did not pay due attention to what was there, to the point of not reading the instructions within it. "You should probably know that some people are going to be impatient with these things." It could well be true, but it is also true that some people simply scan and flip from screen to screen -- and picture to picture. It wasn't truly part of the app anyway. Re: the tasks assigned, the user then said, "Why do I need to do this? I don't want to do this. I just want to schedule my own things." Like in his own app, the Figma screens are not setup for this sort of freedom; the user could well end up arriving at a lot of dead ends. It is not the app itself, but a precursor to it. What I have created in Figma will not yet support this.

Like others after him, the user arrived at the problematic screen (i.e. the calendar) and this leads people to start dealing with the date first, but this will just lead to a dead end. Even Luke was led down the rabbit hole. Finally clicks on the + sign. Already it "it starts at the time" required, so no changes needed to be made. But then, for some reason, he suddenly begins to go off track: "I'm going to set it to repeat everyday." (pp. 35-37). This was not part of the two tasks. Like a skier, he went out of bounds, and then when he finally did get back on track, he said "How do I save it?" (p. 35). On Apple, changes occur automatically, but the way things are setup, there is no closure: "well, I can't do that, so I am just going to cancel, update and save ... **I can't save!**"

Alas, he had an issue re: clicking what looked like big buttons. ("It appears like a big button with words in it.") The design was built partly with button shapes, so this is something that needs to change.

*Buttons, buttons, buttons ...
graphics built from buttons → button actions.*

There are a lot of dead ends in the current iteration. Sometimes, it is better to create a HTML/CSS clickable prototype. This isn't a truly fully developed prototype ... can sometimes cause frustration or confusion. And sometimes, the user is not open to following any sort of directions: "It said 'do this, do this.' I just want to use the app to like -- to do something. I want to do my thing." There is only so much one can do from iteration to iteration – and sometimes meeting people's own *personal* expectations will not necessarily occur. The intro was a preamble, but I subsequently bypassed it.

If the user had made an effort to read the intro, he may not have found it "weird that all the devices are listed right away." That is the way it loads as outlined in the intro! (pp. 2-3, p. 14) ... however, I agree with him that "if it listed 20 devices, it could be a bit cumbersome." Should it find and list all devices? He has a point. "A smaller amount is fine." It is a question of which to list. Do certain devices have priority over others? The system should not necessarily do the selection, but for simplicity, one could just say that those were the selected devices. I included them all together "as a package" that was automatically loaded (pp. 2-3).

When he went into "scheduling," he had to go into individual devices to make changes, rather than from a central place. Some on/off, locked/unlocked changes should be available for quick clicking without changing from device to device. The scheduling button was moved downward inside the device info area, but needs to be moved back upwards, along with other device buttons controlling binary settings. Changes should be done all within one central location – and I will implement this in iteration 4.

User 2

During testing, the user made an issue out of the displayed events at the bottom (leftovers from the previous version of scheduling), even though it was just an example of what could be displayed: "And I get to view the scheduling events associated with things not related to what I chose." True, they were not fetched and displayed from a database and are simply a graphic design leftover from the previous version of scheduling. They are simply things that could be listed in such an area, but as they serve no useful purpose, they could easily be eliminated. Sometimes when told to find something that is wrong with an app, people will just focus on filling up a quota of things that are "wrong." Nevertheless, he wondered why he couldn't access the "scheduling menu itself with no devices selected." Perhaps preloading the *Main Devices* screen is not the best option.

He also said that he could gain "access to other areas within scheduling" on the upper bar. There is a question of whether that info should be left behind in the first place, and I am tending to side that it is not necessary. Originally, all the devices were available just in case one changed one's mind. The upper bar needs to be removed, as it does not truly serve a useful purpose.

User 3

The user was able to explore around the app and pointed out that the scheduling section looked too much like Apple and that it should be modified to include functionality on the same page, rather than on several subsequent pages. I agree with him and was looking for a better arrangement of device controls than what I had originally.

User 4

- Had to carry out 2 tasks
- 1st step is easy enough, but then there is a pause at the next screen as the person had to look for the next step. pressed "Update" ... the scheduling button was at top right side, but it was overlooked.
- turn off at 11pm on Thursday, and there is a calendar --->
- she is having to deal with dates, but by pressing "7", there is no place to schedule a time, as ahead is a dead-end. + screen content is leading people to think that the next step is associated with one of the dates on the screen. It is functional, but ...
- "How can I give them the time?" --> had to be led to right location
- When something IS able to function (rotating dates at bottom of screen), usability increases. Not all people are fluent in apple.
- either it opens upon hitting 7 or there is a "next page button" for easier navigation. All depends on one's experience with Web and mobile. // if something requires too much explanation, perhaps it is not OK. Did not use the intro as it would likely bog people down.

User 5

- off vs. disabled: meaning? ... ?-mark icon leading to an explanation
- on/off, off/on device changes outside the inner area. 2nd person to say so and I agree. The individual device changing needs to occur elsewhere, along with other devices rather than separately within
- the same applied to scheduling ... the scheduling bar needs to be.
- all the details are not necessarily relevant or he/she may not be seeking the info *at that moment*. Display is database driven.

- Scheduling caused a problem for people at the same area/spot: + ... people had to be directed. Had to acknowledge SAVE was missing.
- color to indicate whether a device was on or off. Green for "on" ...
- only certain sections are functioning
- went into the shortcuts area, but this area had nothing to do with either task.

User 6

- the devices automatically appear. Should they??
Animation: Loading devices.
Something to let the user know it has found devices, BUT NOT ALL
- A way to select what SHOULD be active.
- Saw ON and tried clicking ON for that task.
- I see, I do ... finally sees update and clicks it.
- I meant to hit save, but it went elsewhere. Clicked on the screen when it was on the "off" screen ... automatically takes you out
- Mix of uppercase and lowercase. Caps for first letter
- Looking for navigation buttons
- "Did that work?" pressing the 7th ... false affordance // leads to a dead -end, but the leads to correct area. Fine for an apple user, but someone else may not clue in -- unless they are led the way.
- Looks like apple and is "straightforward."
- Scheduling button does not stand out.
- Only going back one step, so no big loss for eliminating it.
- 1st version: icons too small
- her: way bigger would have been OK



Settings



Calendar



Clock



myBCIT



Camera



Photos



Navigation



HRCS



Google Keep



Notes



Productivity



News



Books



FaceTime



Skype



BBM



Facebook



Twitter



Messenger



OtherSocial...



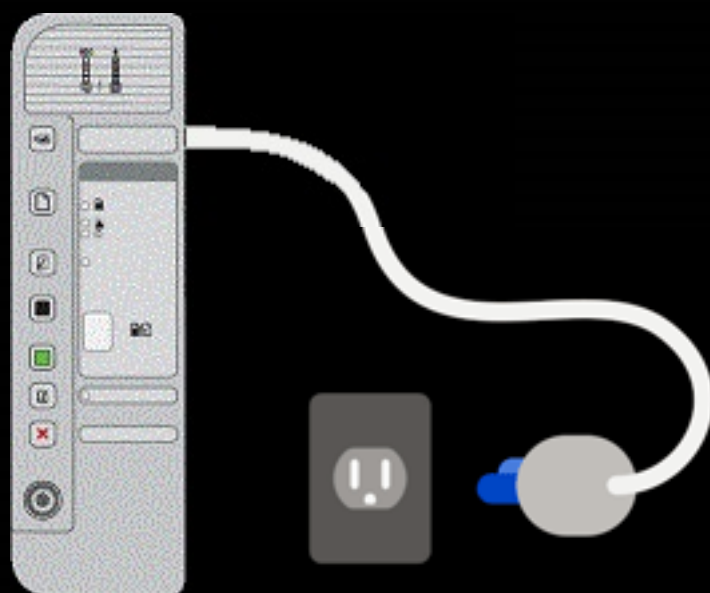
	Home Remote Control System
	LOADING HRCS SYSTEM
Loading ... A black and white loading spinner icon. It consists of a solid black circle in the center, surrounded by twelve rectangular segments arranged in a ring. The segments are of varying heights, creating a sense of motion or a circular arrow.	



Home Remote Control System

MAIN CONTROL UNIT

Please connect the main control unit and plug it in. After you turn it on, press continue.



Continue

Home Remote Control System

PLEASE CONNECT TO WI-FI

Wi-Fi



TELUS182I

CHOOSE A NETWORK...

SHAW-2E0D73



TELUS1822



TELUS2089



Other...

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

Enter

Home Remote Control System

ENTER PASSWORD

Enter the password for "TELUS1822"

Cancel

Enter Password

Join

Password |



Passwords

q w e r t y u i o p

a s d f g h j k l

↑ z x c v b n m ↵

.?123

space

Join

Home Remote Control System

HRCS CONNECTION

Wi-Fi



✓ TELUS1822



Please wait while
the HRCS System
connects to your
network. While you
wait, please locate the
12-digit access code.



Home Remote Control System

12-DIGIT ACCESS CODE

■ ■ ■ ■ - ■ ■ ■ ■ - ■ ■ ■ ■

1

2

3

ABC

DEF

4

5

6

GHI

JKL

MNO

7

8

9

PQRS

TUV

WXYZ

0



Enter the passcode

Home Remote Control System

12-DIGIT ACCESS CODE

4615-1614-8395

1

2

ABC

3

DEF

4

GHI

5

JKL

6

MNO

7

PQRS

8

TUV

9

WXYZ

0



Enter the passcode

Home Remote Control System

HRCS CONTROL UNIT IS ACTIVE

Wi-Fi

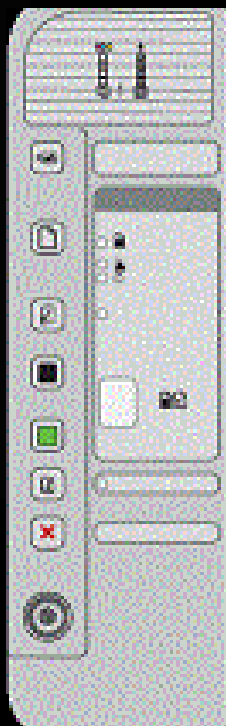


HRCS Control Unit



Press
continue to
load HRCS
devices.

Continue



System Status: OK



Home Remote Control System



SURVEILLANCE





Home Remote Control System



Doorbell w/Camera





Home Remote Control System



Shortcuts Menu



Help



Notifications



SMART Security
Camera



SMART Doorbell





Home Remote Control System



Cancel

ADD A DEVICE

Add

SMART TV

BEDROOM

Device Status: Off



IP Address

192.168.1.65

Subnet Mask

255.255.255.0

Control Unit

192.168.1.254

Renew Lease

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

return

Home Remote Control System

RECOGNIZED HRCS DEVICES

Wi-Fi



✓ **HRCS Control Unit**



THE FOLLOWING DEVICES HAVE BEEN DETECTED.
SELECT THOSE YOU WISH TO CONTROL REMOTELY.

SMART TV



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

Setup System Password



System Status: OK



Home Remote Control System



HRCS DEVICES

Wi-Fi



✓ HRCS Control Unit



SMARTV 1



SMARTV 2



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

Setup System Password



System Status: OK



Home Remote Control System



HRCS DEVICES

Wi-Fi



✓ HRCS Control Unit



SMARTV 1



SMARTV 2



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

Setup System Password



System Status: OK



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Ri

SMART TV 2



Channel

< 12 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

Enter



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 12 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 13 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 15, 2019

3:00 PM

Schedule Preview			
Tue Nov 12	12	45	
Wed Nov 13	1	50	
Thu Nov 14	2	55	AM
Today	3	00	PM
Sat Nov 16	4	05	
Sun Nov 17	5	10	
Mon Nov 18	6	15	

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

8:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

8:00 PM

Today

5

46

Sat Nov 16

6

50

Sun Nov 17

7

55

AM

Mon Nov 18

8

00

PM

Tue Nov 19

9

05

Wed Nov 20

10

10

Thu Nov 21

11

15

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Save

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

10:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Ri

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

return



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

Are you sure you want to cancel? You have not completed the scheduling.

Resume Scheduling

Yes, Please Cancel

Mon Nov 18

6

15

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

S

C

S

E

R



M

M



**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

Are you sure you want to cancel? You have not completed the scheduling.

Resume Scheduling

Yes, Please Cancel

Tue Nov 19 9 05

Wed Nov 20 10 10

Thu Nov 21 11 15

Repeat

Never >

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

S

C

S

E

R



M

M



**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK

User Feedback

User 1:

- What is the meaning of update? (should be "edit")
- Small text and graphics. Needs to be larger.
- Use of scheduling is straightforward after getting past the main screen w/ small text
- Changing the device from off to on (or visa versa) is easy enough, but again one has to deal with controls, icons or text that is too small. Size is the main issue.
- The main screen needs work or needs to be completely redesigned. It is the roadblock to other functionality.

User 2:

- What is the main menu? (he used the hamburger to navigate away from the main screen)
- Sees what appear to be buttons and clicks them. He then finds that there is no response, which he did not expect.
- He wants "repeat" to be available functionally, but it wasn't part of the requested action.
- Wants to see the output that results from scheduling. He expects it to appear in a listing as a new listed item. "I want to see what I did."
- "I want to see a list of scheduled stuff" [done previously that have not occurred yet]. I feel that I should have seen it when I pressed "Scheduling."
- Wants to be able to edit some of the scheduled events.
- Would like the capability of creating new ones, deleting others etc. (But this is not the app itself, but just a clickable prototype)
- The cancel button and back button go to the same place from scheduling (the main devices screen). Cancel should to a confirmation screen.
- Desired the capability to change the channel, but the buttons were non-functional.
- "The main devices screen has three areas listed (small on/off switches). What if I have 5 areas/devices I want to control? There is not enough space."

- It should be able to support as many devices as needed, but inside and outside. Wants to be able to turn on/off a particular light.
- Why is there a user limit to the number of listed devices? "Isn't there some way that I can have more on there?" (on mobile)
- "For something like lights, I feel like having a lot of options – if you have a lot of rooms in your house." [Should rooms be listed, or just found devices throughout the house?]
- "What if I have a lot more than just a bedroom, living room and kitchen."
- "How do I view the cameras?" [At the moment there is only 1 via the main menu icon. It leads to the user Shortcuts Menu.]
- "How do I choose a specific camera from the Camera Screen?"
- "You have the footage showing from one camera. Why can't I see the others?"

User 3:

- Found the main screen confusing as "what are buttons and not buttons? Is this icon, text or button-like area clickable or not?"
- "if you want these items to be clickable, make them obvious." (main devices screen w/ small buttons and text)
- Some areas that are not buttons *that look like buttons*.
- "Make it clear what functionality is associated with a group of controls. Show the main function on the left and the controls on the right side. Separate the two sections with a separator or line."
- Would prefer text with open space, rather than button designs.
- The on/off switches on the main devices screen are too small.
- "You can use their buttons." (Apple, Android, etc.)
- "Many areas are hard to touch." [i.e. slightly smaller than thumb size]
- "Don't use sharp edges. Use rounded edges." He is referring to the main devices screen.
- In the scheduling area, there is no need for the current date, if it is displayed further down the screen.
- "Everything is clear here." [He is an Apple User and is in the scheduling area -- that looks like that of Apple's iPhone controls.]

User 4:

- Button's too small
- Grey out buttons no longer applicable
- Text too small
- More use of colour
- icons are OK
- Make it more like Apple
- App button —> Leads to app without title and menu option — or header
- Turning Device on/off is OK, but too small
- Turning on/off device is missing from scheduling
- Get rid of date
- Add animation for date turning
- Ensure areas are clickable so that road blocks are avoided; people tend to click and the app is not responsive

User 5:

- The main central devices screen needs to be improved as it is the navigation hub of other functionality within the app.
- "Where does the hamburger lead? Is it necessary?"
- "It might be better to incorporate the Shortcuts menu in the main devices screen or in a central area where everything can be accessed from."
- "Re: turning on/off devices, is all the displayed technical information really necessary?"
- "Scheduling is OK, but if a button is not applicable, it should be disabled and have a different color for the text/button area."
- A lot of text and buttons are too small. [Other users also said so.]
- Many buttons and "clickable areas" lead to dead ends.
- "Users should guided through completion of steps for each task."
- "Appropriate use of color for highlighting would be of benefit."

User 6:

- Small text and graphics causes problems. "User would likely leave."
- "The two tasks do not have any major road blocks other than apparent size issues."
- "There is a lot of technical information. All of it is not necessarily applicable upfront. If it is applicable to the backend or a database, perhaps it should be removed from what IS the front end of the app."
- "The main screen makes the app non-usable AS IS. It needs to be redesigned."
- "The screens look like a collection of buttons, especially on the main devices screen."
- "Testing on real devices should be done. Don't rely just on mock-ups."
- "Navigation from screen to screen could be improved."

User 7:

- "Welcome to Lilliput. Honey, I've shrunk the kids."
- "The scheduling area is easy to use, but I find the controls in the individual device areas where one sees all the technical information to be problematic due to the *size* for the controls. There is also a lot of information displayed, perhaps too much."
- "I need a magnifying glass." Main navigation area needs work.
- "The user should be able to quickly access different areas of the app without being bogged down by [usability] issues, especially small text and graphics."
- "Make appropriate use of fonts and font sizes. Consistency is needed."
- "The amount of technical information could be reduced or eliminated entirely. If the user does not ask for it, don't show it."
- "The app appears to be somewhat database driven."
- "List results and show previous user data -- as well as current data."
- "The user should be able to forget about problems and not encounter them. The main screen would be a setback to navigation throughout the app. And what leads up to this screen?"

Home Remote Control System

Setup

Daily Use



Settings



Calendar



Clock



myBCIT



Camera



Photos



Navigation



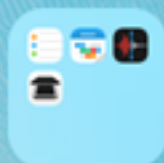
HRCS



Google Keep



Notes



Productivity



News



Books



FaceTime



Skype



BBM



Facebook



Twitter



Messenger



OtherSocial...



Home Remote Control System

LOADING HRCS SYSTEM

Loading ...

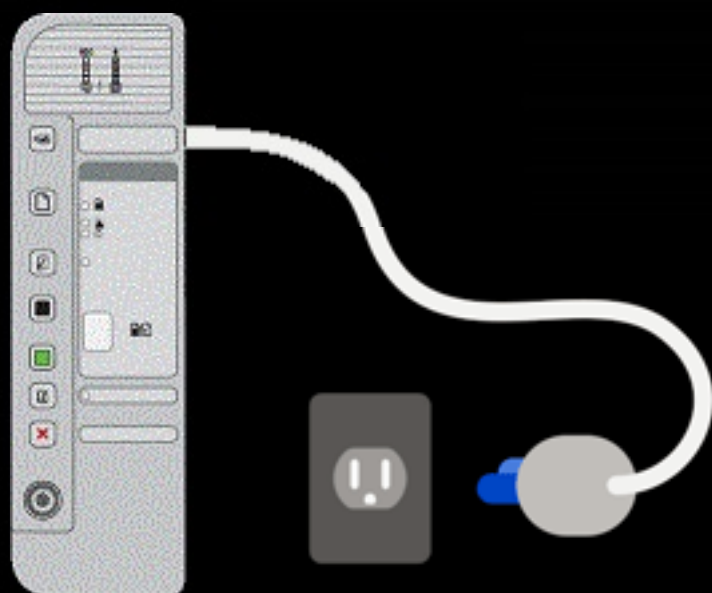


Continue

Home Remote Control System

MAIN CONTROL UNIT

Please connect the main control unit and plug it in. After you turn it on, press continue.



Continue

Home Remote Control System

PLEASE CONNECT TO WI-FI

Wi-Fi



TELUS182

CHOOSE A NETWORK...

SHAW-2E0D73



TELUS1822



TELUS2089



Other...

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

Enter

Home Remote Control System

ENTER PASSWORD

Enter the password for "TELUS1822"

Cancel

Enter Password

Join

Password



Passwords

q w e r t y u i o p

a s d f g h j k l

↑ z x c v b n m ↵

.?123

space

Join

Home Remote Control System

HRCS CONNECTION

Wi-Fi



✓ TELUS1822



Please wait while the HRCS System connects to your network. While you wait, please locate the 12-digit access code.



Password Entry

Home Remote Control System

12-DIGIT ACCESS CODE

■ ■ ■ ■ - ■ ■ ■ ■ - ■ ■ ■ ■

1

2

ABC

3

DEF

4

GHI

5

JKL

6

MNO

7

PQRS

8

TUV

9

WXYZ



0

Next

Enter the Passcode

Home Remote Control System

12-DIGIT ACCESS CODE

4615-1614-8395

1

2

ABC

3

DEF

4

GHI

5

JKL

6

MNO

7

PQRS

8

TUV

9

WXYZ



0

Next

Thank You

Home Remote Control System

MARTHA ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M 

123



space

Enter

Home Remote Control System

Add User

MARTHA ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

RECOGNIZED HRCS DEVICES

Wi-Fi



✓ **HRCS Control Unit**



THE FOLLOWING DEVICES HAVE BEEN DETECTED.
SELECT THOSE YOU WISH TO CONTROL REMOTELY.

SMART TV



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Continue

System Status: OK

Home Remote Control System

HRCS CONTROL UNIT IS ACTIVE

Wi-Fi



✓ HRCS Control Unit



Setup is
complete.

Please restart
and login with
4-digit
password.



Reset



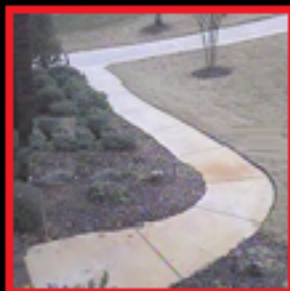
Home Remote Control System



SURVEILLANCE



Cameras



Camera 1



Camera 2



Camera 3



Home Remote Control System



CAMERA 2



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

Enter

Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System



(Press Enter)

1

2

ABC

3

DEF

4

GHI

5

JKL

6

MNO

7

PQRS

8

TUV

9

WXYZ

0



Enter the passcode



Home Remote Control System



DEVICE CONTROL

Wi-Fi



✓ **HRC S Control Unit**



SMARTV 1



SMARTV 2



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

Setup System Password



System Status: OK



Home Remote Control System



DEVICE CONTROL

Wi-Fi



✓ **HRCS Control Unit**



SMARTV 1



SMARTV 2



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

System Status: OK

Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System

Shortcuts Menu



SMART Security
Camera



SMART Doorbell



Home Remote Control System



MAIN MENU

User Settings

Add A Device

Device Control

Surveillance

Scheduling

Notifications



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Ri

SMART TV 2



Channel

< 12 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

Enter



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 12 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 13 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 15, 2019

3:00 PM

Previous Days			
Tue Nov 12	12	45	
Wed Nov 13	1	50	
Thu Nov 14	2	55	AM
Today	3	00	PM
Sat Nov 16	4	05	
Sun Nov 17	5	10	
Mon Nov 18	6	15	
Next Days			

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

8:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

8:00 PM

Today	5	45	
Sat Nov 16	6	50	
Sun Nov 17	7	55	AM
Mon Nov 18	8	00	PM
Tue Nov 19	9	05	
Wed Nov 20	10	10	
Thu Nov 21	11	15	

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Save

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

10:00 PM

Repeat

Never >

System Status: OK

Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Doorbell w/Camera





Home Remote Control System



Cancel

ADD A DEVICE

Add

SMART TV

BEDROOM

Device Status: Off



IP Address

192.168.1.65

Subnet Mask

255.255.255.0

Control Unit

192.168.1.254

Renew Lease

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

return



Home Remote Control System



SCHEDULING

The Lord of the Ri

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

return



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

Are you sure you want to cancel? You have not completed the scheduling.

Resume Scheduling

Yes, Please Cancel

Mon Nov 18

6

15

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

S

C

S

E

R



M

M



**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

Tue Nov 19 9 05

Wed Nov 20 10 10

Thu Nov 21 11 15

Repeat

Never >

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

S

C

S

E

R



M

M



**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK

Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Doorbell w/Camera





Home Remote Control System



NOTIFICATIONS

Q Search



Front Door

Locked at the lock

7:19 pm



Rear Door

Unlocked at the lock

7:04 pm



Front Door

Locked remotely

6:47 pm



Doorbell



6:44 pm



Front Door

Locked by user code

6:25 pm



Rear Door

Unlocked by user code

6:09 pm



Overview



Activity



Automation



More

Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



DEVICE CONTROL

Wi-Fi



✓ **HRCS Control Unit**



SMART TV



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

System Status: OK



Home Remote Control System



DEVICE CONTROL

Wi-Fi



✓ **HRCS Control Unit**



SMART TV



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

System Status: OK

Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



User Feedback Summary

- Expand Screen Links or Pathways, so there aren't so many dead ends.
- Is there a central functions menu that I can always come back to?
- There are a lot of non-Functioning Buttons
- No Selection for Multiple cameras
- no notifications area
- User setup? How can I add users?
- How can I bypass setup when done
- Is the doorbell screen always the same? (Shortcuts Menu)

Home Remote Control System

Setup

Daily Use



Settings



Calendar



Clock



myBCIT



Camera



Photos



Navigation



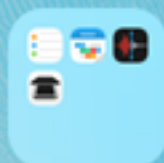
HRCS



Google Keep



Notes



Productivity



News



Books



FaceTime



Skype



BBM



Facebook



Twitter



Messenger



OtherSocial...



Home Remote Control System

LOADING HRCS SYSTEM

Loading ...

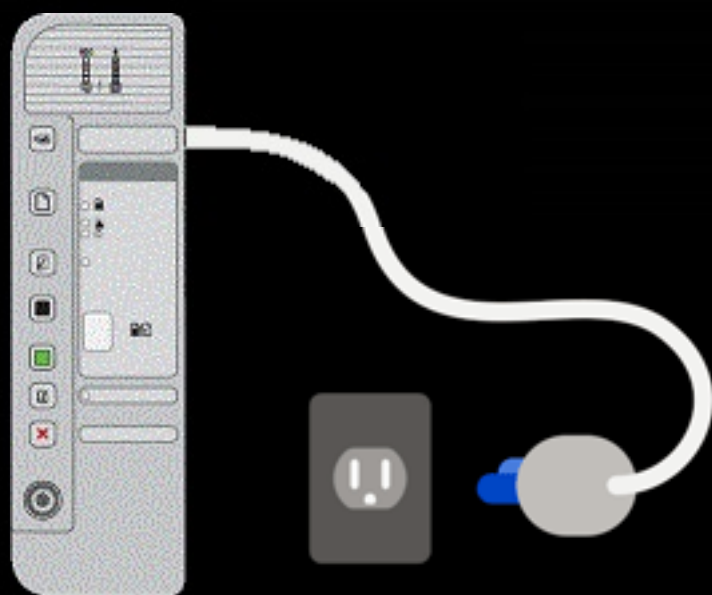


Continue

Home Remote Control System

MAIN CONTROL UNIT

Please connect the main control unit and plug it in. After you turn it on, press continue.



Continue

Home Remote Control System

PLEASE CONNECT TO WI-FI

Wi-Fi



TELUS182

CHOOSE A NETWORK...

SHAW-2E0D73



TELUS1822



TELUS2089



Other...

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

Enter

Home Remote Control System

ENTER PASSWORD

Enter the password for "TELUS1822"

Cancel

Enter Password

Join

Password



Passwords

q w e r t y u i o p

a s d f g h j k l

↑ z x c v b n m  (x)

.?123

space

Join

Home Remote Control System

HRCS CONNECTION

Wi-Fi



✓ TELUS1822



Please wait while the HRCS System connects to your network. While you wait, please locate the 12-digit access code.



Password Entry

Home Remote Control System

12-DIGIT ACCESS CODE

■■■■-■■■-■■■■

1

2

ABC

3

DEF

4

GHI

5

JKL

6

MNO

7

PQRS

8

TUV



WXYZ



0

Next

Enter the Passcode

Home Remote Control System

12-DIGIT ACCESS CODE

4615-1614-8395

1

2

ABC

3

DEF

4

GHI

5

JKL

6

MNO

7

PQRS

8

TUV



WXYZ



0

Next

Thank You

Home Remote Control System

MARTHA ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Q W E R T Y U I O P

A S D F G H J K L



Z

X

C

V

B

N

M



123



space

Enter

Home Remote Control System

[Add User](#)

MARTHA ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System

RECOGNIZED HRCS DEVICES

Wi-Fi



✓ **HRCS Control Unit**



THE FOLLOWING DEVICES HAVE BEEN DETECTED.
SELECT THOSE YOU WISH TO CONTROL REMOTELY.

SMART TV



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Continue

System Status: OK

Home Remote Control System

HRCS CONTROL UNIT IS ACTIVE

Wi-Fi



✓ HRCS Control Unit



Setup is
complete.

Please restart
and login with
4-digit
password.



Reset



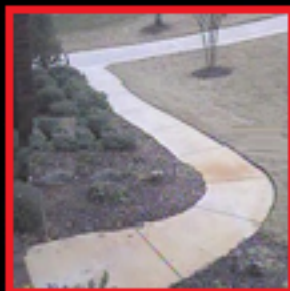
Home Remote Control System



SURVEILLANCE



Cameras



Camera 1



Camera 2



Camera 3



Home Remote Control System



CAMERA 2





Home Remote Control System



DEVICE CONTROL

Wi-Fi



✓ **HRC S Control Unit**



SMARTV 1



SMARTV 2



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

System Status: OK



Home Remote Control System



DEVICE CONTROL

Wi-Fi



✓ **HRC S Control Unit**



SMARTV 1



SMARTV 2



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

System Status: OK



Settings



Calendar



Clock



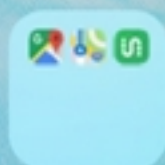
myBCIT



Camera



Photos



Navigation



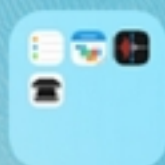
HRCS



Google Keep



Notes



Productivity



News



Books



FaceTime



Skype



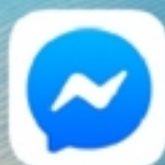
BBM



Facebook



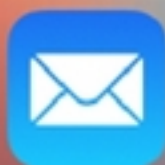
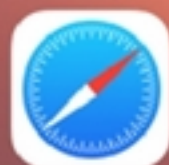
Twitter



Messenger



OtherSocial...





Home Remote Control System



Cancel

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications



Home Remote Control System



(Press Enter)

1

2

ABC

3

DEF

4

GHI

5

JKL

6

MNO

7

PQRS

8

TUV

9

WXYZ

0



Enter the passcode



Home Remote Control System



Cancel

SCHEDULING

Wi-Fi



✓ HRCS Control Unit



SMARTV 1



SMARTV 2



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

For devices that are not TVs, channel selection is hidden via programming.

System Status: OK



Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



SHORTCUTS MENU



SMART Security
Camera



SMART Doorbell



Home Remote Control System



MAIN MENU

User Settings

Add A Device

Device Control

Surveillance

Scheduling

Notifications



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Ri

SMART TV 2



Channel

< 12 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M 

123



space

Enter



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 12 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 13 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 15, 2019

3:00 PM

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 15, 2019

3:00 PM

Schedule Preview			
Tue Nov 12	12	45	
Wed Nov 13	1	50	
Thu Nov 14	2	55	AM
Today	3	00	PM
Sat Nov 16	4	05	
Sun Nov 17	5	10	
Mon Nov 18	6	15	

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

8:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

8:00 PM

Today	5	45	
Sat Nov 16	6	50	
Sun Nov 17	7	55	AM
Mon Nov 18	8	00	PM
Tue Nov 19	9	05	
Wed Nov 20	10	10	
Thu Nov 21	11	15	

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Save

The Lord of the Rings

SMART TV 2



Channel

< 18 >

Starts

Nov 18, 2019

7:00 PM

Ends

10:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

****:

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

Sep 10, 2019

End of Access

Sep 10, 2020

User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



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Sep 10, 2019

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Sep 10, 2020

User Settings



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Notifications





Home Remote Control System



Doorbell w/Camera





Home Remote Control System



Cancel

ADD A DEVICE

Add

SMART TV

BEDROOM

Device Status: Off



IP Address

192.168.1.65

Subnet Mask

255.255.255.0

Control Unit

192.168.1.254

Renew Lease

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

return

Home Remote Control System

SCHEDULING

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

Q W E R T Y U I O P

A S D F G H J K L

↑ Z X C V B N M ↵

123



space

return



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

Are you sure you want to cancel? You have not completed the scheduling.

Resume Scheduling

Yes, Please Cancel

Mon Nov 18

6

15

Ends

4:00 PM

Repeat

Never >

System Status: OK



Home Remote Control System



SCHEDULING

The Lord of the Rings

S

C

S

E

R



M

M



**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel

System Status: OK



Home Remote Control System



Cancel

SCHEDULING

Next

The Lord of the Rings

Are you sure you want to cancel? You have not completed the scheduling.

Resume Scheduling

Yes, Please Cancel

Tue Nov 19 9 05

Wed Nov 20 10 10

Thu Nov 21 11 15

Repeat

Never >

System Status: OK



SCHEDULING

The Lord of the Rings

S

C

S

E

R



M

M



**Are you sure you
want to cancel? You
have not completed
the scheduling.**

Resume Scheduling

Yes, Please Cancel



Home Remote Control System



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Doorbell w/Camera





Home Remote Control System



NOTIFICATIONS

Q Search



Front Door

Locked at the lock

7:19 pm



Rear Door

Unlocked at the lock

7:04 pm



Front Door

Locked remotely

6:47 pm



Doorbell



6:44 pm



Front Door

Locked by user code

6:25 pm



Rear Door

Unlocked by user code

6:09 pm



Overview



Activity



Automation



More



Home Remote Control System



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ROBERT ANDERSON

****:

Primary User



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Surveillance



Scheduling



Notifications





Home Remote Control System



DEVICE CONTROL

Wi-Fi



✓ **HRC S Control Unit**



SMART TV



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



Add a device...

System Status: OK



Home Remote Control System



DEVICE CONTROL

Wi-Fi



✓ **HRCS Control Unit**



SMART TV



SMART Thermostat



SMART Doorbell



SONY Security Camera



AXIS Post Light



[Add a device...](#)

System Status: OK



Home Remote Control System



Cancel

Add User

ROBERT ANDERSON

Primary User



Will Answer Doorbell



Start of Access

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User Settings



Add A Device



Surveillance



Scheduling



Notifications





Home Remote Control System



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Surveillance



Scheduling



Notifications



Conclusion

I found the process of creating an app of value, but handling team-work a bit challenging at times. Looking back, I would have preferred to have chosen a different kind of app; perhaps one related to music or other general subject – as I felt the app was too technical overall. Things got complicated when handling user settings, scheduling and defining user flows *alone*, as often the rest of my team did not enter the picture until the end of the week; too late in my opinion. It was interesting to see the variants that emerged after we split -- but I feel that there were [personality] conflicts from the start, as well as a lack of consensus due to divergent opinions and work. As I am taking a course in project management next, I will be looking back to this project to analyze when things worked, as well as when they didn't. Having come from a website design background, I now feel that I have more experience with app development. Usability is a big part of this.