Remote Home

Introduction

- Team
  - James Wiegand (Team Lead)
  - Christopher Jensen
  - Joshua Kinkade
  - Brian Vogel
- Client
  - June Knight L-3 Communications
  - Dr. Jeff McGough

Topics

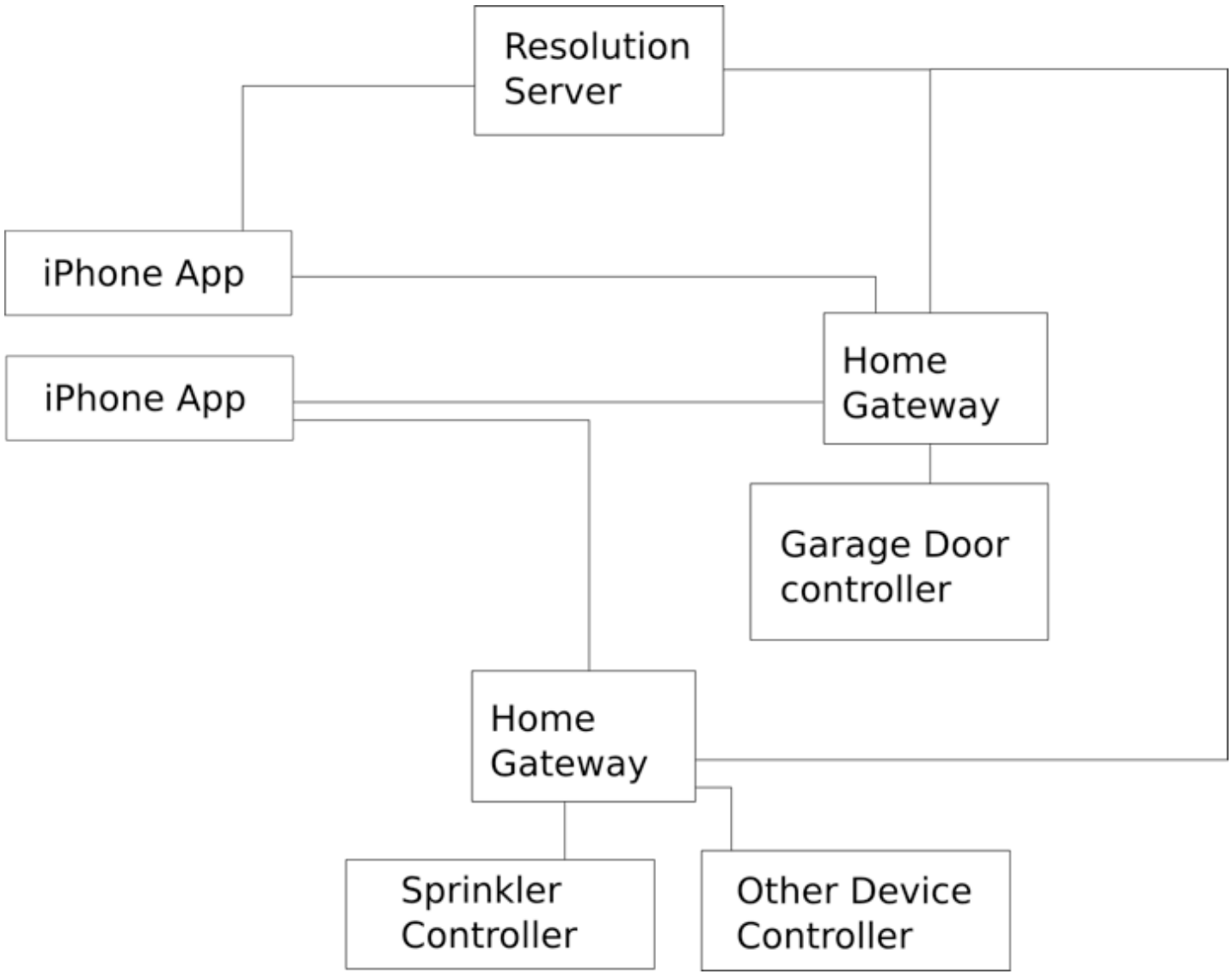
- Project overview
- What we've done
- Where we're going
- Prototype demos

Problem

- Smart Phone Controlled Home
  - Smart Phone Controlled Garage Door Opener
  - Smart Phone Controlled Sprinkler System

- Create a custom smartphone app, that is able to control a household device, such as lights, garage door, sprinkler system, etc.

Project Overview



Sprint 1

- Developed UI Prototype
- Communication Protocol
  - iOS <--> Resolution Server
- Taught iOS to Josh and Jordan
- Low Level Networking in iOS
- Research Hardware
  - Suppliers/Supplies

Sprint 2

- Got Hardware
  - Experiments
- Taught iOS
- Garage Door UI Prototype

Sprint 3

- Resolution Server Started
- iPhone 1st run prototype
- Draft 1 of Base Station --> Resolution Server Communications Protocol

Sprint 4

- Top level Framework
  - Communication Protocol BS <-->iOS
  - TLS
  - Navigation Controller
  - Remove/Update

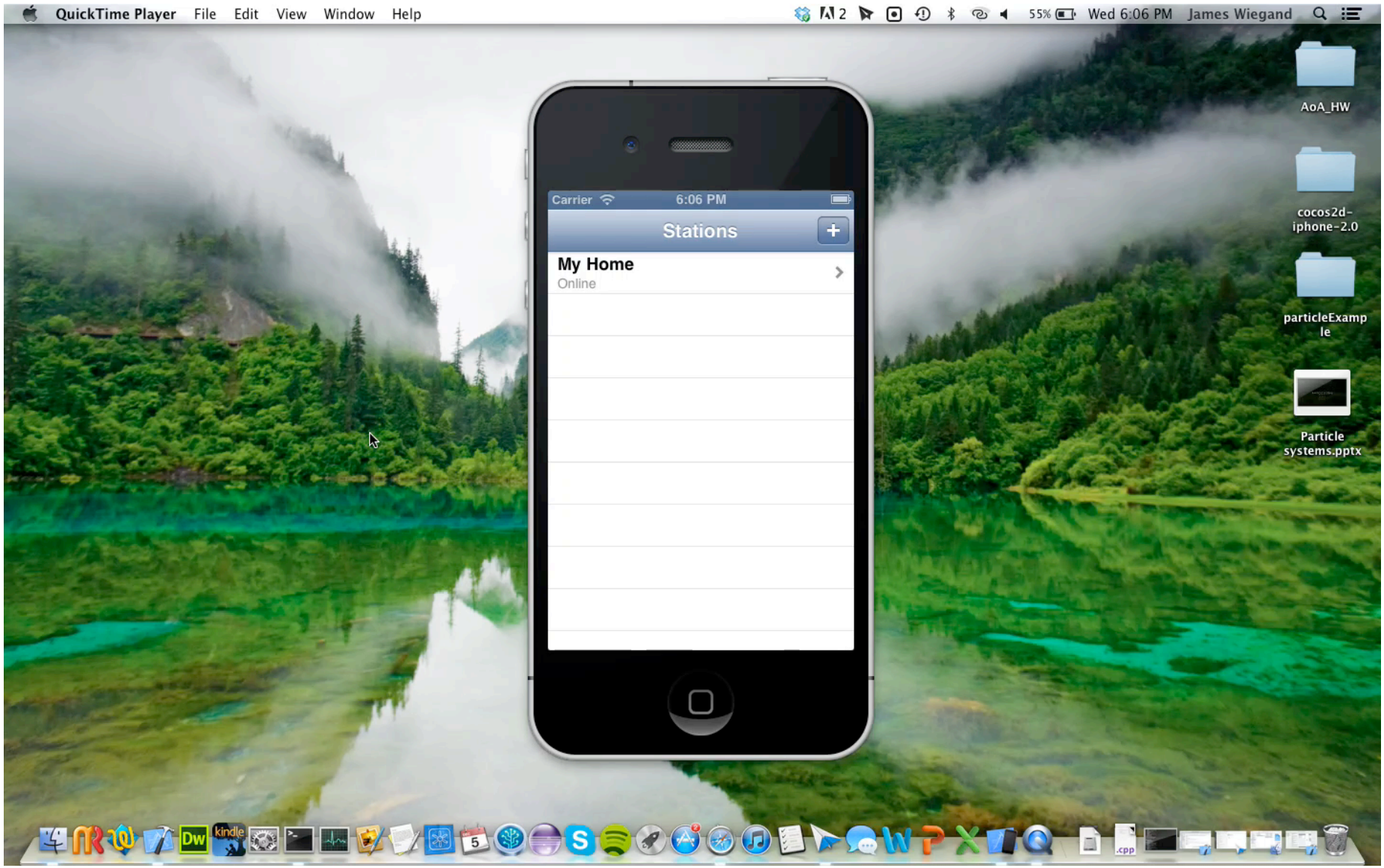
Next Semester

- Garage View Controller
  - Communication Protocol
  - iOS <-> Garage Door
- Base Station Software
  - Base Station <-> iOS
  - Web Interface
- Hardware Implementaion
  - Garage Door
  - Sprinkler System

Prototype 1 (Sprint 1)

- UI prototype
  - Main screen
  - Add Base Station
    - Changed Device ID to MAC
  - Devices
  - Errors

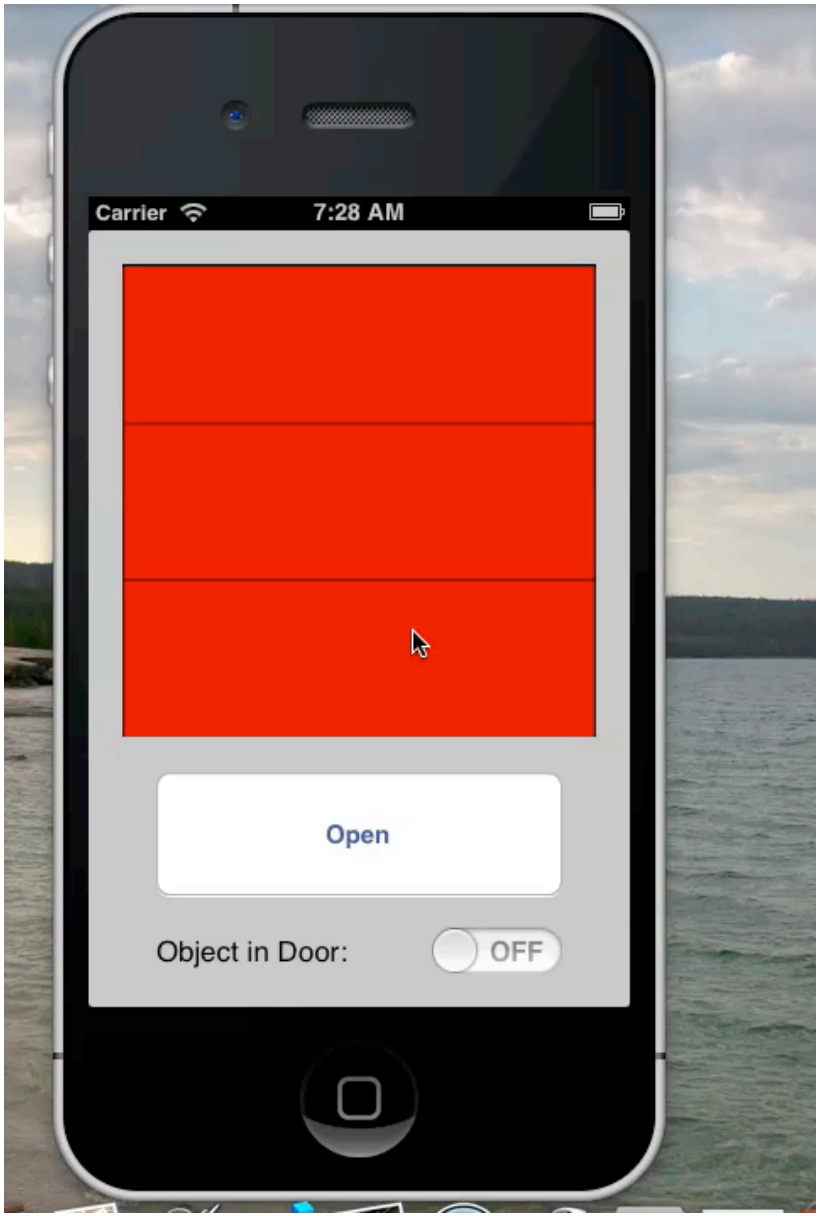
Prototype 1


QuickTime Player File Edit View Window Help
Wed 6:06 PM James Wiegand
AoA_HW
cocos2d-iphone-2.0
particleExample
Particle systems.pptx
Carrier
6:06 PM
Stations
My Home
Online

Prototype 2 (Sprint 2)

- Animated picture of a garage door
- Button to open and close door
- swipe up on garage door to open, down to close
- alert if somethings prevents it from closing

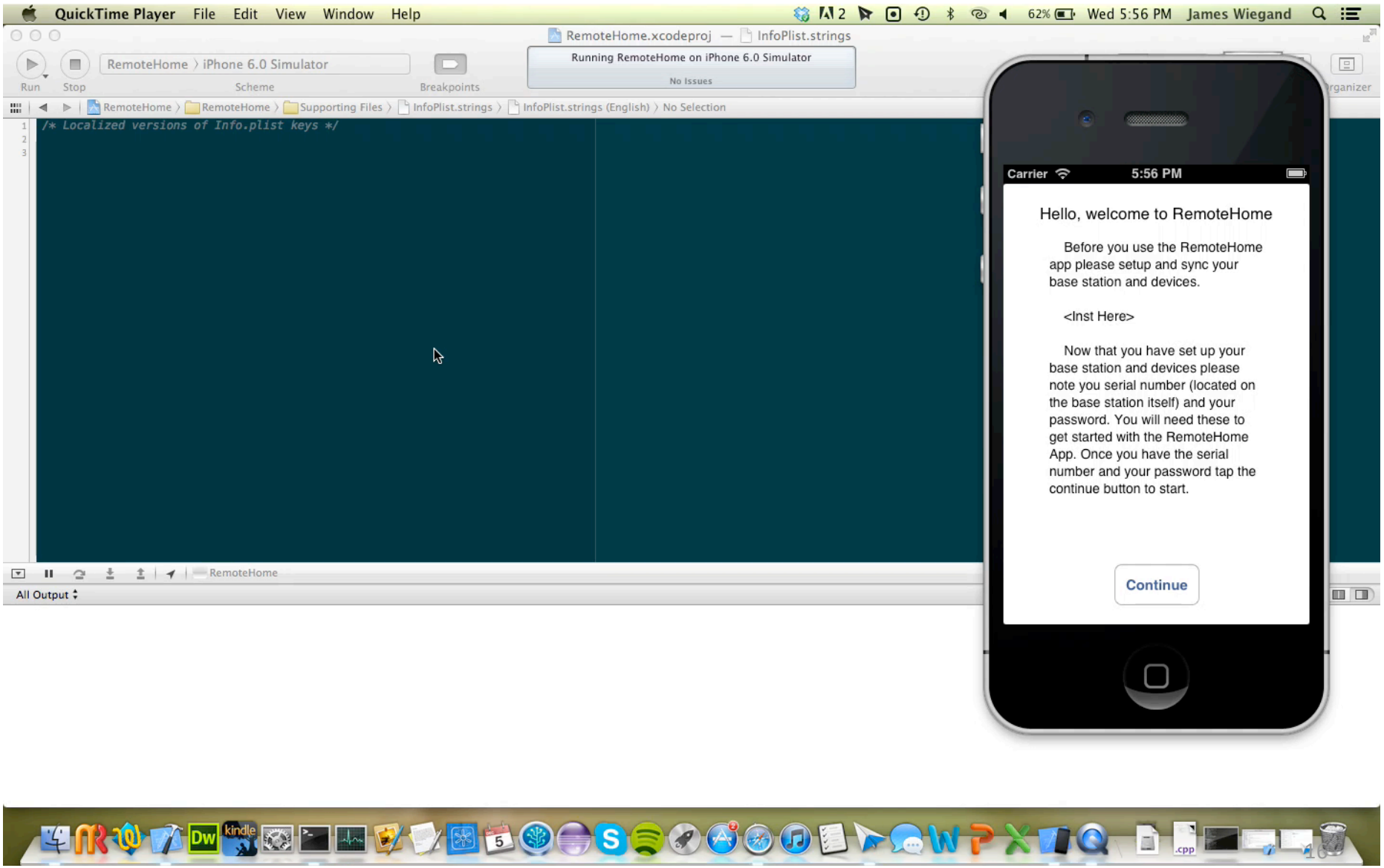
Prototype 2



Prototype 3 (Sprint 3)

- First run prototype
- Using Hercules to simulate resolution server
- Errors for bad input
- Error for device not found
- Successfully register 2 devices
  - SQLite output on console
- Error for bad connection

Prototype 3


QuickTime Player File Edit View Window Help
Wed 5:56 PM James Wiegand
RemoteHome.xcodeproj — InfoPlist.strings
RemoteHome › iPhone 6.0 Simulator
Running RemoteHome on iPhone 6.0 Simulator
No Issues
Run
Stop
Scheme
Breakpoints
/* Localized versions of Info.plist keys */
All Output
Carrier
5:56 PM
Hello, welcome to RemoteHome
Before you use the RemoteHome app please setup and sync your base station and devices.
<Inst Here>
Now that you have set up your base station and devices please note you serial number (located on the base station itself) and your password. You will need these to get started with the RemoteHome App. Once you have the serial number and your password tap the continue button to start.
Continue

Questions?