

Sprint Report 1

Team Name: Remote House

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Sponsor: L-3 Communications

Description: L-3 Communications is a company that develops, command and control, avionics, and communications technology for commercial and government customers.

Project Goal: The goal of this project is to allow people to control devices in their house using an application on their smart phone.

Needs:

- An application to send commands to devices remotely
- A way to physically control devices
- A way to connect the two things listed above

Project Overview: We are creating a system that allows users to control devices in their house, such as a garage door opener, from an application on their iPhone. Our system will have a gateway in the house that coordinates communication to and from the app with the numerous devices in the house. The devices will be connected to the gateway using Bluetooth wireless communication. We will use a centralized dynamic domain name server to allow users to connect their app with the specific gateway in their house. Our software is designed to allow new types of devices to be easily included in the system.

Project Environment:

Mobile Application: We are developing our mobile application for iOS, primarily targeting iPhones. We may also create an Android application if we have time.

Gateway: Our gateway will be a small Intel based Linux server.

Device Controllers: The controller for each device will be an Arduino board with a Bluetooth shield to communicate with the gateway.

DNS server: The DNS server will store the IP addresses of every gateway, so the app can communicate directly with the gateway.

Project Deliverables:

- iPhone application
- Gateway software
- DNS software
- Prototype Arduino control board
- Documentation

Backlog:

- Server Configuration
- iOS Register Device
- Communications Protocol
- iOS Main View
- iOS Status View
- iOS Garage Door opener Controller View
- Garage Door opener