

Open Sesame

Minutes 11 February 2014

Meeting Leader: Jane McGuinness

Secretary: Angie Savela

1. General Items

a. Expectations for demo

Have demos set up, run through them, hand in documentations.

2. Subsystems

a. Door Status Subsystem

i. New progress: addition of real-time timer

Minute delay: if in transition for longer than a minute goes into error state

Maybe add: if it doesn't leave switch immediately, goes into another error state

Use in full system.

ii. Still incomplete:

1. Write up

2. Demonstration

For Demo: show LEDs turning on and off with the movement of the magnets, show error states

b. Camera Subsystem

i. New progress:

1. Establishment of 2-way SPI communication between Imp and microcontroller

Fixed after realizing we were over-checking

2. Verified/set-up camera functionality

Camera functions

3. Breadboard camera to kit board

check if pins are 5V tolerant, could possibly remove resistors

ii. Still incomplete:

1. Camera controls code

use header files, write own commands

2. UART between camera and microcontroller

For Demo: take a picture after sending a command to the microcontroller

c. Phone/App Subsystem

i. New progress:

Establishing internet connectivity in progress

app now on phone

can connect to the internet

ii. Still incomplete:

1. Using internet connectivity to communicate with imp cloud

2. Identify what network the device is connected to

Talk about how to interact with the imp cloud

Assigning text to URL

For Demo: communication between cloud and phone, NOT the internet approach

d. Garage Communication Subsystem

Garage door board: took apart, possibly messed up a connection, should be fixable

i. Open questions:

1. What type of receiver garage motor circuit uses

Check online for people who have created their own universal remote, don't know if it is the same rolling code approach

2. Interpreting remote transmitted signals via USBEE
3. Uncertainty about HCS362 encoder (HCS410 encoder) compatibility

ii. Plan B hardwiring option for demo?

If you can't simulate a remote, simulate the wall switch.

Could we connect a second "wall switch" to the same screws on the opener?
hopefully a good backup plan

3. Additional Items

a. Alternative meeting times for demos:

- i. Thursday: 8:30 AM Room is only free until 9:30
- ii. Friday: 9 AM, 4:15PM

Make sure the room is open, email Professor Schafer with times

b. Additional questions/concerns

No usual meeting on Tuesday, Demo will replace.

Ordering from microchip direct

SAMPLES get 2-3 parts for free (max out cart), once a month

- Microcontrollers
- decoders