

Christine Wan, Victoria Reed
Section: Wednesday

Project Proposal

Project Title:
Bluetooth light switch

Overview/Goal/Purpose

We want to make a Bluetooth light switch where an on/off signal will be sent through Bluetooth to trigger some motors to turn off a light switch. It will also have an infrared sensor so that when a person passes by, the light switch will turn on the light.

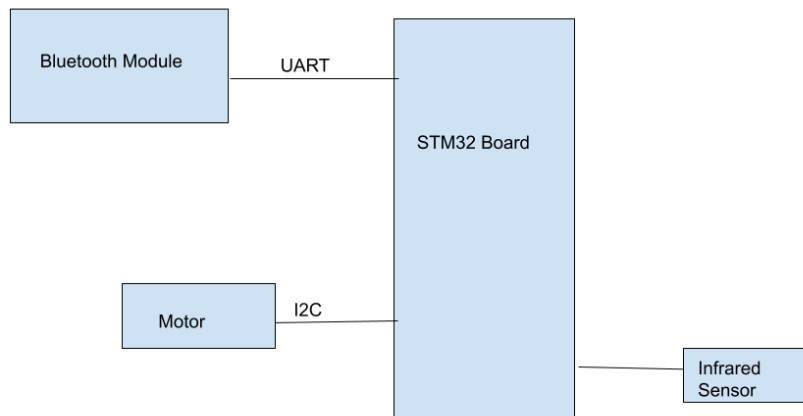
Peripherals (At least 2, external to the board)

- Bluetooth Receiver
- Motor
- Infrared Sensor

Serial interface protocols (At least 2 different protocols)

- I2C
- UART

Block diagram



Responsibility list for everyone in group

Victoria will work on the bluetooth communication and Christine will work on the motor controls.

Software structure

The setup will be performed in C while all communication between devices will be done with UART and I2C protocols (Bluetooth with UART and motor control with I2C). An on/off signal will be sent via bluetooth which will trigger an interrupt in the motor to flip the light switch. The infrared sensor for human detection will be an input signal to the board because no serial communication is needed.

Website: https://sites.google.com/view/ece153blightswitch/home?authuser=2&read_current=1