



# HOME SWITCH MODIFIER(MANUAL TO WIRELESS)

Devraj Mogaveera(170020003, *devraj.mogaveera.17002@iitgoa.ac.in*) Bhavam Gupta(170020028, *bhavam.gupta.17002@iitgoa.ac.in*) Raj Hansini Khoiwal(170010014, *raj.khoiwal.17001@iitgoa.ac.in*) Uday Singh Meena(170020014, *uday.meena.17002@iitgoa.ac.in*)

## Introduction

AIM IS TO BUILD A MACHINE WHICH IS BLUE-TOOTH CONTROLLED AND WHEN PLACED ON HOME SWITCH CAN MODIFY INTO A WIRELESS SWITCH.

## System Overview

A block diagram of the system is given in Fig.1. Application is connected to Bluetooth module and ON/OFF signal is sent. Bluetooth module is connected to Arduino and its signal is perceived by arduino. Arduino is coded accordingly to control servo motor.

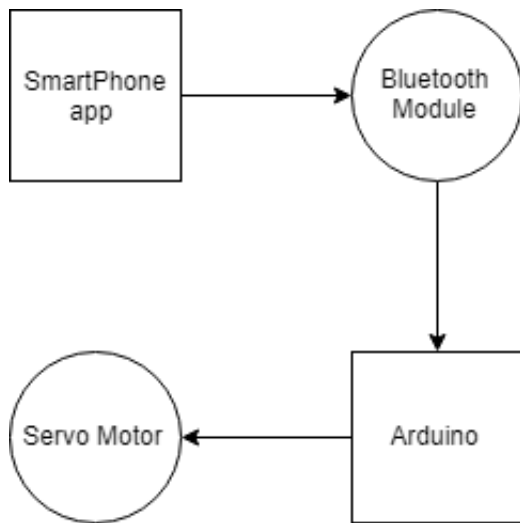
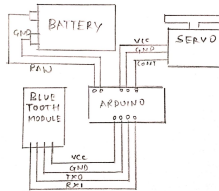


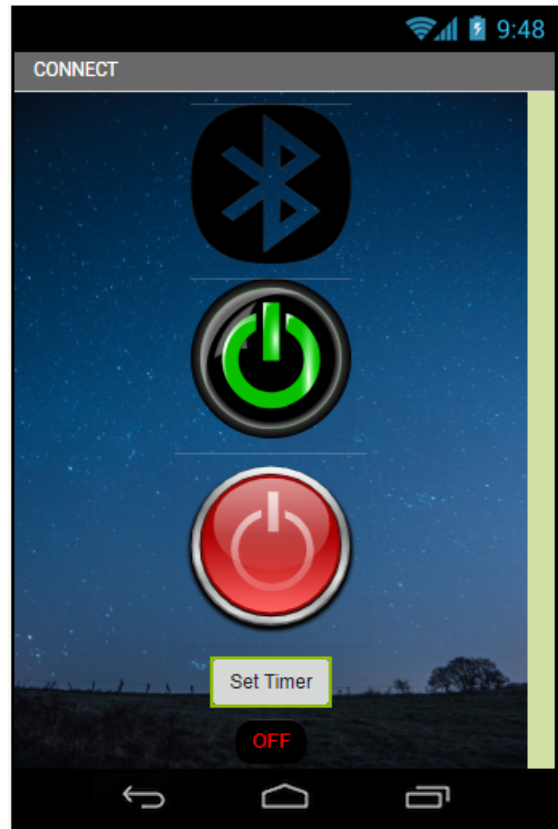
Fig. 1: block diagram.

## Implementation Details



We have used the UART module to transfer our code to Arduino Pro Mini. We are giving the main power to RAW pin on arduino board as arduino contains voltage regulator which will regulate the input given to the raw pin. The servo motor and Bluetooth module are connected to the Arduino. MIT App inventor is used to make smartphone app. App has two buttons ON/OFF, and extra feature of timer.

## Results



Tasks which have been performed

- model has been assembled compactly.
- It has been tested on 4X2 Home switch.
- Android app has been made.

## Conclusion

The simulated module mentioned above has been testified and verified thoroughly.

## References

- MIT app inventor (android app)
- [www.arduino.com](http://www.arduino.com) (arduino coding and connections)
- [draw.io](http://draw.io) (for block diagram)