# 4.1

## 4.1.1

The schematic of the circuit is as shown in the following figure:

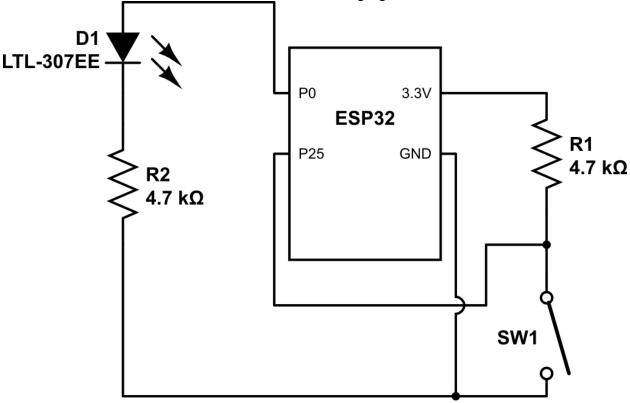


Figure 1Circuit Schemartic for 4.1.1

Code for this problem is enclosed in the folder as 4.1.1.ino.

### 4.1.2

The schematic of the circuit is shown as in the following figure:

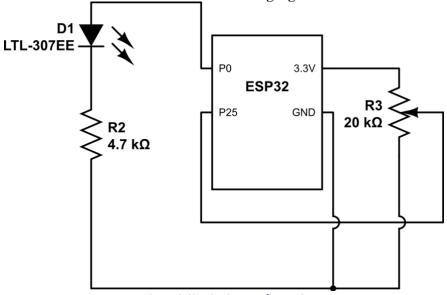


Figure 2 Circuit Diagram for 4.1.2

The code for this problem is enclosed in 4.1.2.ino.

Video demonstrating the working system is at this link: https://www.youtube.com/watch?v=zRFp01QDtPs

### 4.1.3

The schematic for this problem is as in the following picture

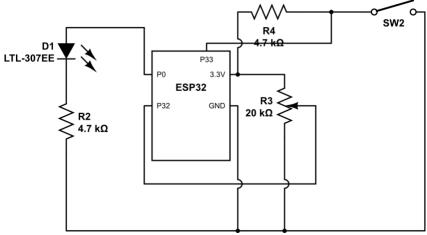


Figure 3 Schematic for 4.1.3

Code for this problem is included as 4.1.3\_final. Video demonstrating the working game is in the following link: https://drive.google.com/open?id=1HCENSNb259IrE2TTeumCQs9FXrV8MoMs

### 4.1.4

Andrew Hou, Yuchen Guo and I are forming a group for the car project.

Out team name is: Brutal, Savage, Rekt

For the car control part, we will be using four DC motors to power the cart and turning it.

We will mount the motors using the holes available on the motors and laser cut the mounting parts. In order to control the car, we will be using the onboard WiFi available already and some PS2 controllers.

We will figure out the detailed design for this car this coming week.