

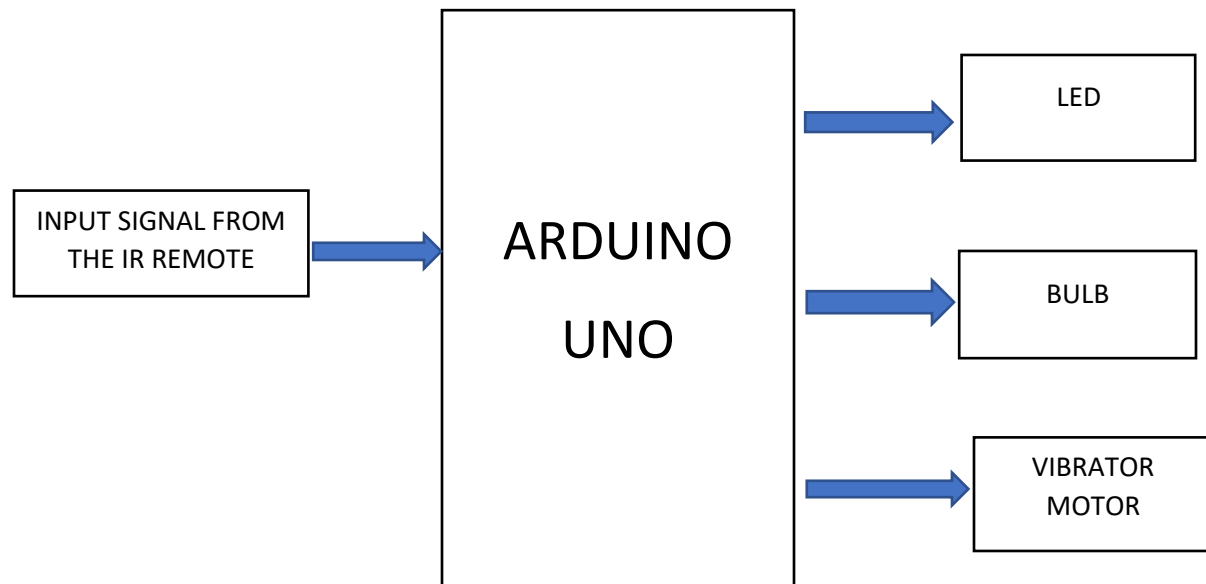
ASSIGNMENT-01

SMART HOME AUTOMATION

CONCEPT:

- Here, the led, bulb and the vibrator motor are turned on using the IR remote
- For each element to be turned on different numbers are used on the remote.
- An IR temperature sensor is also used
- It is coded in such away that different elements are operated when the signal is passed from the remote.

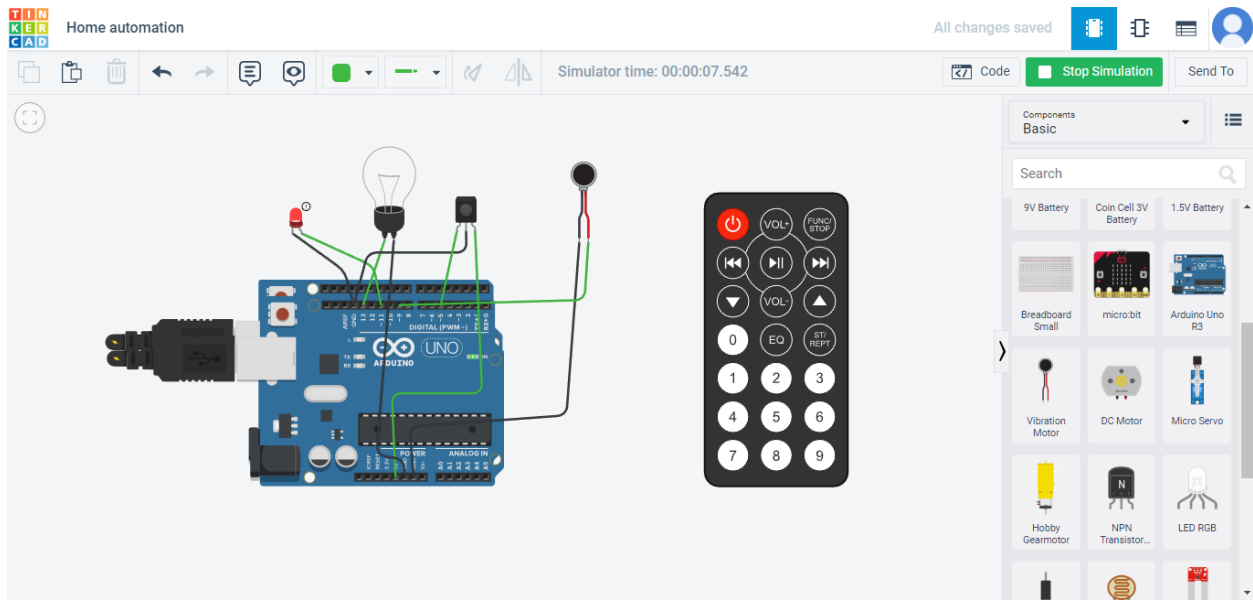
BLOCK DIAGRAM:



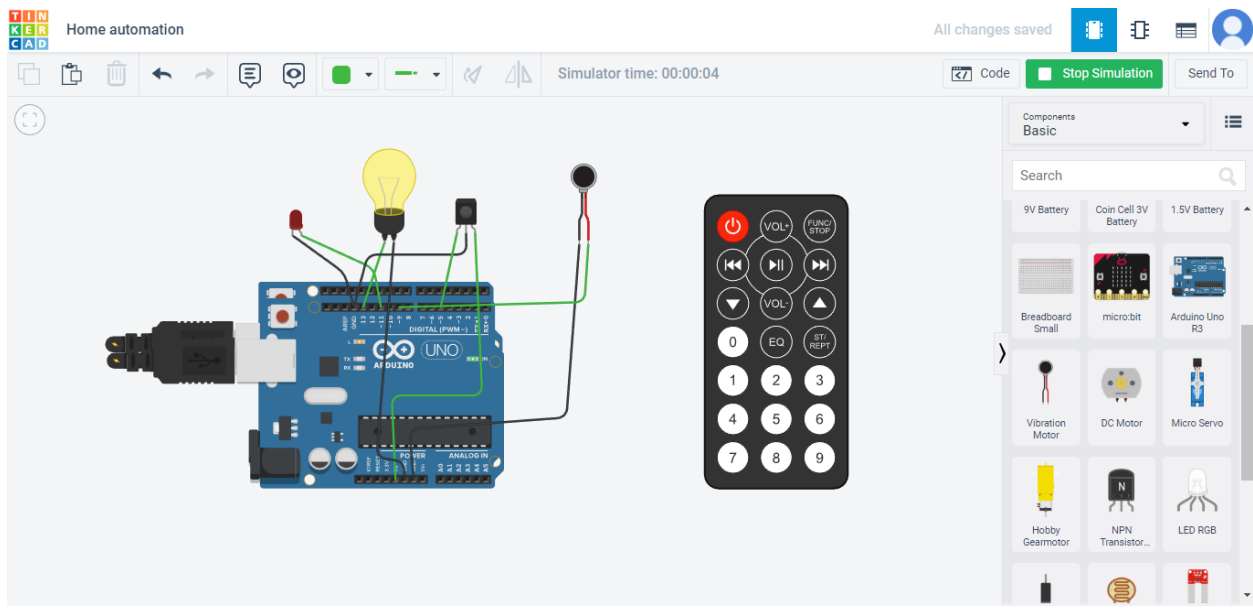
CODE:

```
#include <IRremote.h>
int RECV_PIN = 5;
int i=0;
int j=0;
int k=0;
IRrecv irrecv(RECV_PIN);
decode_results results;
void setup() {
  Serial.begin(9600);
  irrecv.enableIRIn();
  pinMode(13,OUTPUT);
  pinMode(9,OUTPUT);
  pinMode(11,OUTPUT);
}
void loop() {
  //digitalWrite(13,LOW);
  if (irrecv.decode(&results)) {
    Serial.println(results.value, HEX);
    if(results.value==0xFD30CF)
    {
      i++;
      int x=i%2;
      digitalWrite(13,x);
    }
    else if(results.value==0xFD08F7)
    {
      j++;
      int y=j%2;
      digitalWrite(9,y);
    }
    else if(results.value==0xFD8877)
    {
      k++;
      int z=k%2;
      digitalWrite(11,z);
    }
    irrecv.resume();
  }
  delay(100);
}
```

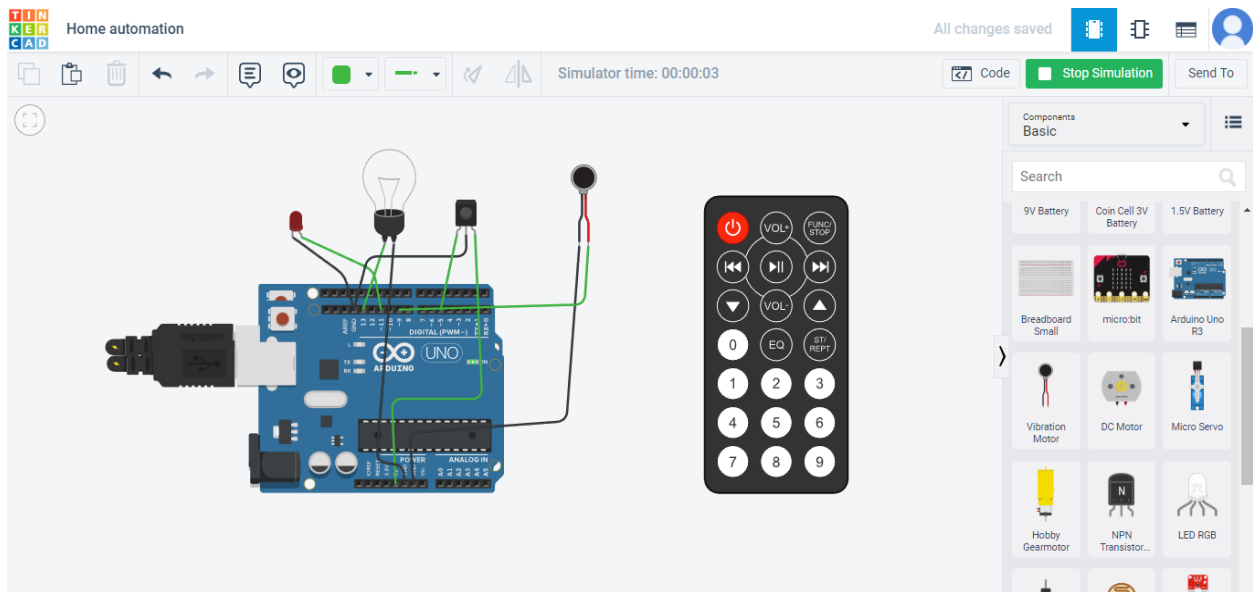
OUTPUT:



LED is glown when 2 is pressed in remote



Bulb is blown when 0 is pressed in remote



when no input is given