```
float x,y;                //TEMP
#define trigPin 12       //ULTRA
#define echoPin 10
int ledPin= 13;
int duration, distance; //ULTRA

#include<Servo.h>      //servo
Servo my;                //servo

char val;                          //bluetooth

void setup() {
 Serial.begin(9600);
 pinMode(2,INPUT); //IR  GATE FIRST
 pinMode(3,INPUT);
 my.attach(11);      //servo

 pinMode(4, OUTPUT);     //IR GATE FIRST


 pinMode(7,OUTPUT);                //TEM
 pinMode(8,INPUT);              //pir 1
 pinMode(9,OUTPUT);             //LED 1
 // pinMode(10,INPUT);           //pir 2
  //pinMode(11,OUTPUT);               //LED2
 pinMode(trigPin, OUTPUT); //12  PIN  ULTRA
 pinMode(echoPin, INPUT);  //10 PIN ULTRA
 pinMode(ledPin, OUTPUT);  //13 PIN  ULTRA



   pinMode(3,OUTPUT);              //bluetooth
}


void loop() {
 x=analogRead(0);                    //TEMP
  y=((x/1024)*5)*100;
  Serial.println(y);
  delay(500);

  if(y>44)
```

```
  {
  digitalWrite(7,1);
  }
  else
  {
  digitalWrite(7,0);
  delay(500);
  }
                                        //TEMP


if(digitalRead(8)==HIGH)                        //pir
 {
  digitalWrite(9,HIGH);
  }
 else
{ digitalWrite(9,LOW);}




  digitalWrite(trigPin, HIGH);            //ULTRA
   delayMicroseconds(10);
   digitalWrite(trigPin, LOW);
   duration = pulseIn(echoPin, HIGH);
   distance = (duration/2) / 29.1;

  if (distance >= 10 || distance <= 0)
  {
  // Serial.println("no object detected");


   digitalWrite(ledPin,LOW);
   }
  else
  {
  Serial.println("object detected \n");
 Serial.print("distance= ");

  Serial.print(distance);
   digitalWrite(ledPin,HIGH);
  }                                                 //ULTRA
if(digitalRead(2)==HIGH)         //gate first
```

```
 {
  my.write(0);           //servo


   }
 else
 {
  my.write(90);              //servo
 }

 analogRead(5);              //ldr
  float a = analogRead(5);
 Serial.println(a);


    if (a <=200) {

     digitalWrite(4,1);
    Serial.println("LDR is DARK, LED is ON");


    }
   else {

     digitalWrite(4,0);
     Serial.println("-----");


   }                                          //ldr


if (Serial.available())                                          //bluetooth
{
  val = Serial.read();
  Serial.println(val);


  if(val == 'TV')
  digitalWrite(3,HIGH);

  else if(val == 'tv')
  digitalWrite(3,LOW);
```

```
  }                                                                    //bluetooth
```