

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

```
#include<Servo.h>  
  
Servo my;
```

```
char val;
```

```
void setup() {  
  
  Serial.begin(9600);  
  
  pinMode(2,INPUT);  
  
  pinMode(3,INPUT);  
  
  my.attach(11);
```

```
  pinMode(4, OUTPUT);
```

```
  pinMode(7,OUTPUT);  
  
  pinMode(8,INPUT);  
  
  pinMode(9,OUTPUT);  
  
  pinMode(10,INPUT);  
  
  pinMode(11,OUTPUT);
```

```
pinMode(trigPin, OUTPUT);  
  
pinMode(echoPin, INPUT);  
  
pinMode(ledPin, OUTPUT);
```

```
pinMode(3,OUTPUT);  
}
```

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

```
if(y>44)  
  
{  
  
digitalWrite(7,1);  
  
}  
  
else  
  
{  
  
digitalWrite(7,0);  
  
delay(500);
```

```
}
```

```
if(digitalRead(8)==HIGH)
```

```
{
```

```
  digitalWrite(9,HIGH);
```

```
}
```

```
else
```

```
{ digitalWrite(9,LOW);}
```

```
digitalWrite(trigPin, HIGH);
```

```
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);  
  }  
  if(digitalRead(2)==HIGH)  
  {  
    my.write(0);  
  
  }  
  else  
  {  
    my.write(90);  
  }  
  
  analogRead(5);  
  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("-----");
```

```
}
```

```
if (Serial.available())
```

```
{
```

```
    val = Serial.read();
```

```
    Serial.println(val);
```

```
    if(val == 'TV')
```

```
digitalWrite(3,HIGH);
```

```
else if(val == 'tv')
```

```
digitalWrite(3,LOW);
```

```
}
```

```
}
```