



```
#define relay4 3
```

```
int ldr1,relay1=11,ldr2,relay2=12,relay3=10;
```

```
int cm = 0;
```

```
long readUltrasonicDistance(int triggerPin, int echoPin)
```

```
{
```

```
pinMode(triggerPin, OUTPUT);
```

```
digitalWrite(triggerPin, LOW);
```

```
delayMicroseconds(2);
```

```
digitalWrite(triggerPin, HIGH);
```

```
delayMicroseconds(10);
```

```
digitalWrite(triggerPin, LOW);
```

```
pinMode(echoPin, INPUT);
```

```
return pulseIn(echoPin, HIGH);
```

```
}
```

```
void setup() {
```

```
Serial.begin(9600);
```

```
pinMode(A1,INPUT);
```

```
pinMode(relay1,OUTPUT); pinMode(A2,INPUT);
```

```
pinMode(relay2,OUTPUT);
```

```
pinMode(relay3,OUTPUT);
```

```
pinMode(relay4,OUTPUT);
```

```
digitalWrite(relay1,LOW);
```

```
digitalWrite(relay2,LOW);
```

```
}
```

```
void loop() {
```

```
ldr1=analogRead(A1);
```

```
Serial.print("ldr1:");
```

```
Serial.println(ldr1);
```

```
ldr2=analogRead(A2);
```

```
Serial.print("ldr2:");
```

```
Serial.println(ldr2);
```

```
if(ldr1>750&&ldr2>750)
```

```
{ digitalWrite(relay1,LOW);
```

```
digitalWrite(relay2,LOW);  
  
}  
  
if(ldr1<700&&ldr2<700)  
{  
  
digitalWrite(relay2,HIGH);  
  
digitalWrite(relay1,HIGH);  
  
}  
  
delay(500);  
  
int range;  
  
cm = 0.01723 * readUltrasonicDistance(6, 7);  
  
Serial.print(cm);  
  
Serial.println("cm"); //range=200;
```

```
//int height = range-cm;  
  
//Serial.print("HIGHT:");  
  
//Serial.println(height);  
  
if(cm<10)  
  
digitalWrite(relay4,HIGH);  
  
else if(cm>25)  
  
digitalWrite(relay4,LOW);  
  
delay(100); // Wait for 100 millisecond(s)  
  
}
```