```
int t=7;
int e=3;
void setup()
{
  Serial.begin(9600);
  pinMode(t,OUTPUT);
  pinMode(e,INPUT);
  pinMode(13,OUTPUT);
  pinMode(12,OUTPUT);
  pinMode(2,INPUT);
}
void loop()
{
  int p=digitalRead(2);
  Serial.println(p);
  if(p)
  {
    digitalWrite(13,HIGH);
    Serial.println("motion detected and led on!!");
  }
  else
    digitalWrite(13,LOW);
  digitalWrite(t,LOW);
  digitalWrite(t,HIGH);
  delayMicroseconds(10);
  digitalWrite(t,LOW);
  float dur=pulseIn(e,HIGH);
  float dis=(dur*0.0343)/2;
  Serial.print("Distance : ");
```

```
Serial.println(dis);

Serial.println(" cm");

if(dis>100)

  digitalWrite(12,HIGH);

else

  digitalWrite(12,LOW);

}
```