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Project Name: IOT based smart crop  
protection system for agriculture

```
Int trigpin=2;
Int echopin=3;
Int distance;
Void setup()
{
  Serial.begin(9600);
  pinMode(4,INPUT);
  pinMode(8,OUTPUT);
  pinMode(13,OUTPUT);
  pinMode(trigpin,OUTPUT);
  pinMode(echopin,INPUT);
  pinMode(12,OUTPUT);
}
Void loop()
{
  Int pir=digitalRead(4);
  Serial.println(pir);
  If(pir)
  {
    digitalWrite(13,HIGH);
    Serial.println( " motion detected" );
  }
  Delay(1000);

  Double val=analogRead(A0);
  Double temp=(((val/1024)*5)-0.5)*100;
  Serial.println(temp);
  If(temp>25)
    Serial.println( " temperature is great" );
```

Delay(1000);

digitalWrite(trigpin,LOW);

digitalWrite(trigpin,HIGH);

delay(100);

digitalWrite(trigpin,LOW);

float dur = pulseIn(echopin,HIGH);

float dis =(dur\*0.0343)/2;

Serial.print( " distance:" );

Serial.print(dis);

Serial.println( " cm" );

If(distance<100)

{

digitalWrite(8,HIGH);

Serial.println( " turn on light" );

}

Else

Serial.println( " turn off the light" );

If(dis>=100)

{

For(int i=0;i<=30000;i+10)

{

Tone(12,i);

Delay(1000);

noTone(12);

delay(1000);

}

}

}