

TEAM NAME: IOT Based Smart Crop Protection System for Agriculture
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SPRINT-2

Birds detection circuit: Protect the fruits and vegetables from the birds by using piezo electric buzzer with arduino

```
void setup()
```

```
{
```

```
    pinMode(2,INPUT);
```

```
    pinMode(13,OUTPUT);
```

```
}
```

```
void loop()
```

```
{
```

```
    if (digitalRead(2)==HIGH)
```

```
    {
```

```
        digitalWrite(13,HIGH);
```

```
}  
  
else  
  
{  
  
    digitalWrite(13,LOW);  
  
}  
  
delay(10);  
  
}
```

Moisture circuit: To detect the moisture level in the soil

```
int moistureValue;  
  
float moisture_percentage;  
  
void setup()  
  
{  
  
    Serial.begin(9600);  
  
}
```

```
void loop()
{
    moistureValue = analogRead(A0);
    moisture_percentage = ((moistureValue/539.00)*100);
    Serial.print("\nMoisture Value : ");
    Serial.print(moisture_percentage);
    Serial.print("%");
    delay(1000);
}
```

Animal detection circuit: without fencing , to detect the animals entry in the field

```
#include<LiquidCrystal.h>

LiquidCrystal lcd(11,12,5,4,3,2);

int led = 7;
```

```
int pirPin = 13;
```

```
void setup(){
```

```
    pinMode(6,OUTPUT);
```

```
    lcd.begin(16,2);
```

```
    pinMode(led, OUTPUT);
```

```
    pinMode(pirPin, INPUT);
```

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

```
}
```

```
void loop()
```

```
{
```

```
    lcd.blink();
```

```
    int a = digitalRead(pirPin);
```

```
    Serial.println(a);
```

```
    if(a==HIGH)
```

```
{  
  lcd.setCursor(1,1);  
  lcd.print("Animal Detected");  
  digitalWrite(led, HIGH);  
  digitalWrite(6, LOW);  
  delay(2000);  
  lcd.clear();  
}  
else  
{  
  digitalWrite(led, LOW);  
  digitalWrite(6, HIGH);  
  lcd.clear();  
}  
}
```