

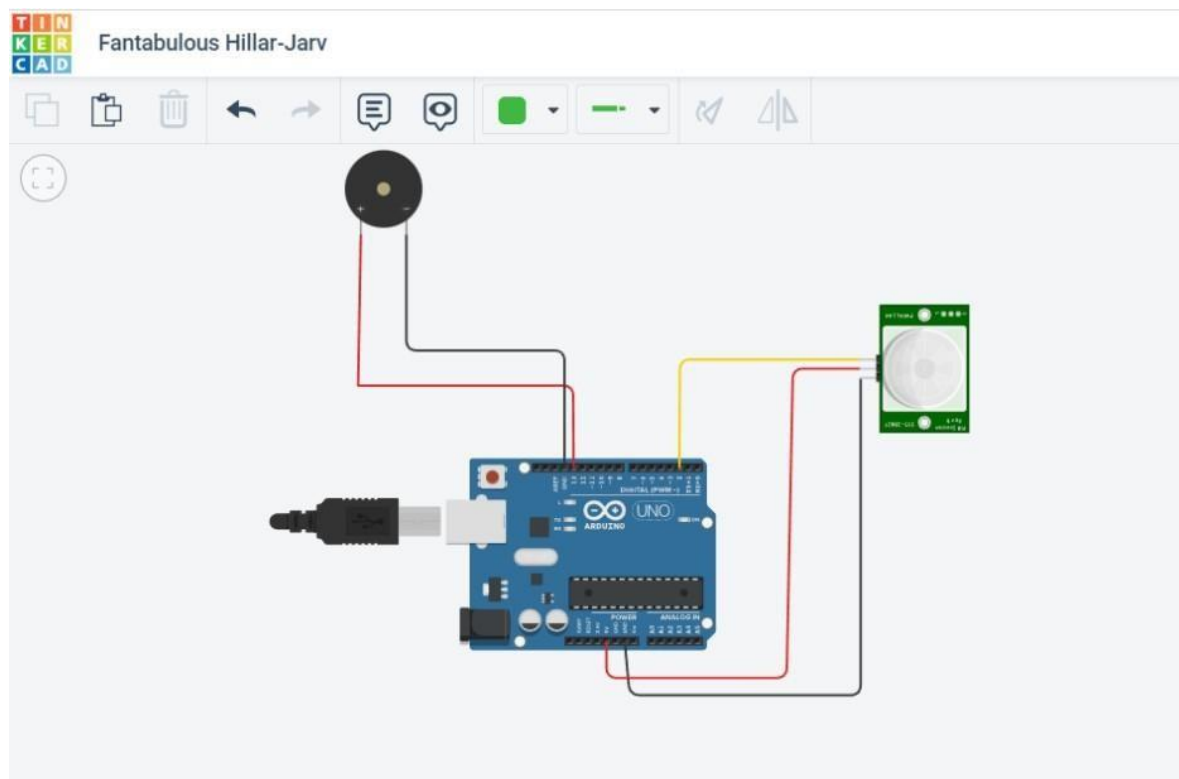
# PROJECT DEVELOPMENT PHASE

## SPRINT-1

Team ID	PNT2022TMID22100
Project Name	IoT Based Smart Crop Protection System for Agriculture
Date	20-Nov-2022

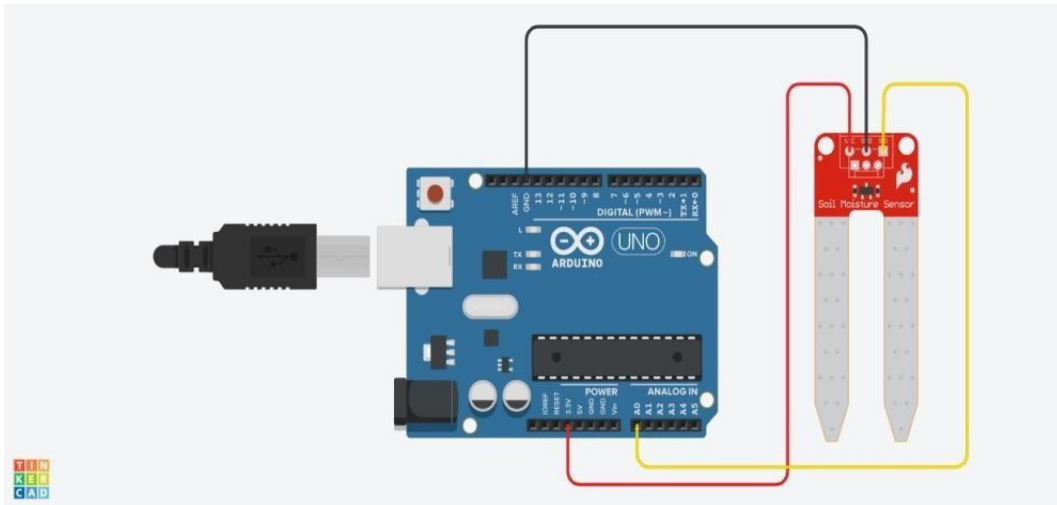
### Birds Detection Circuit:

Protect the fruits and vegetables from the birds by using Piezo electric buzzer with Arduino.



## Moisture Circuit:

To detect the moisture level in the soil



## Animals Detection Circuit:

Without fencing, to detect the animal entering the field

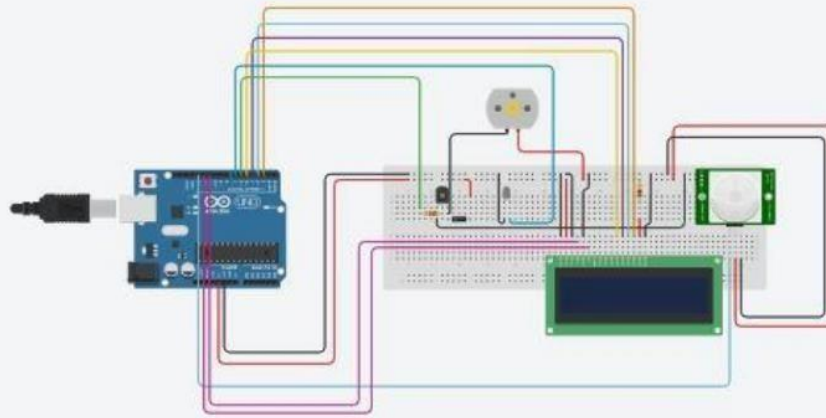
Animal Detection



▶ Start Simulation



Code



## CODE:

### Birds Detection Circuit:

```
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);
```

```
}
```

### **Animals Detection Circuit:**

```
#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();
```

```
    }
```