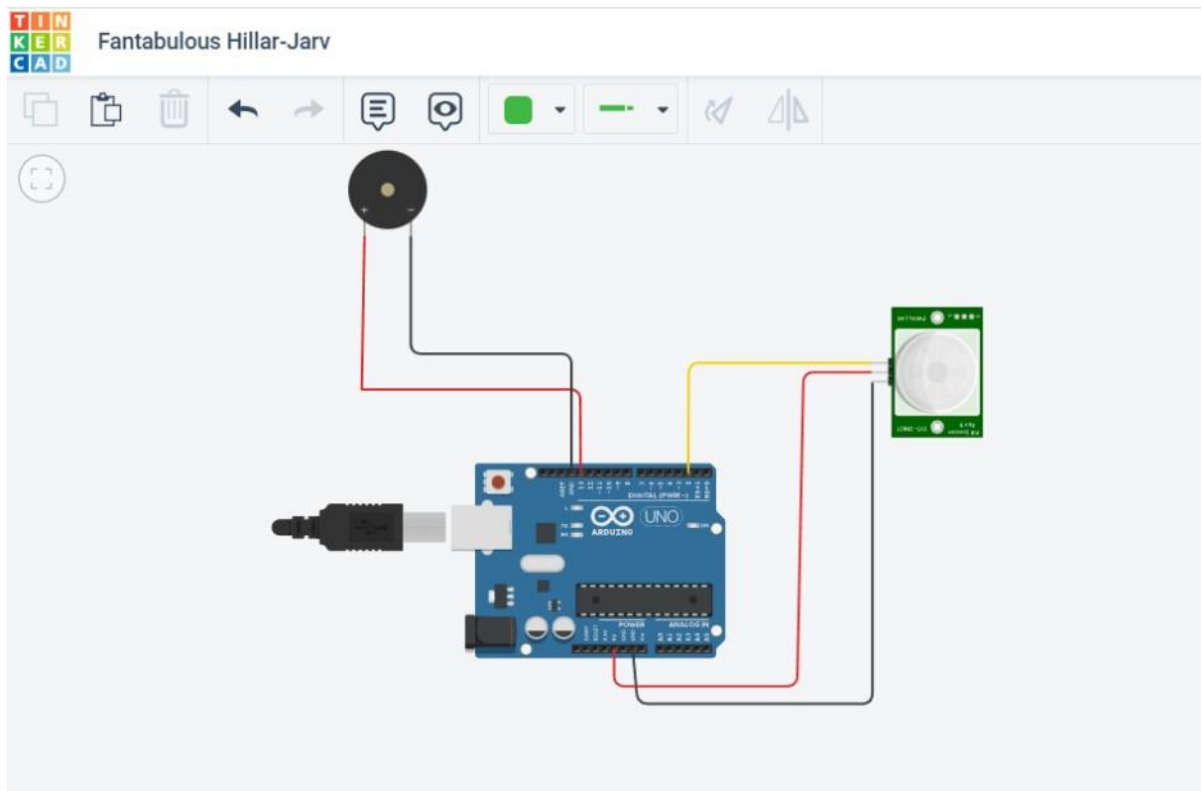


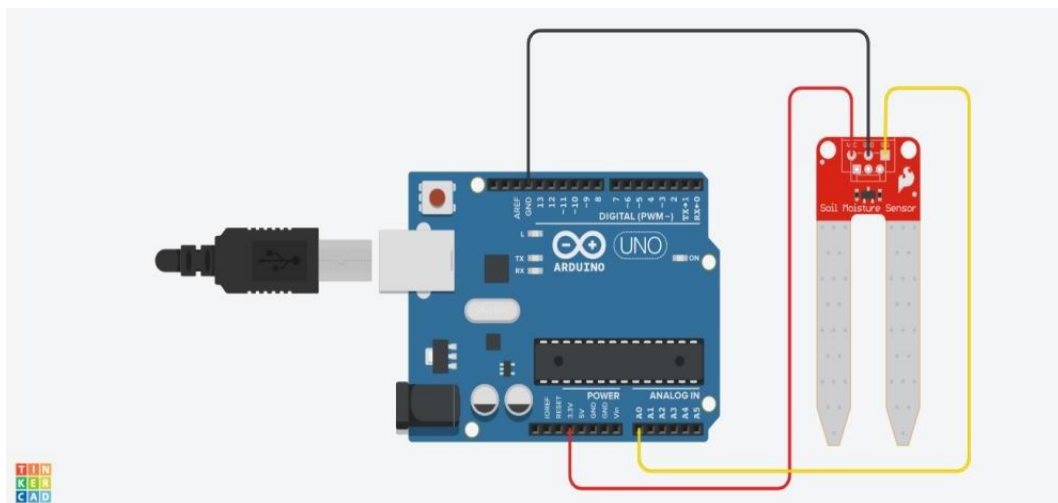
## SPRINT-1

TEAM ID	PNT2022TMID04647
Project Name	IoT Based Smart Crop Protection System for Agriculture

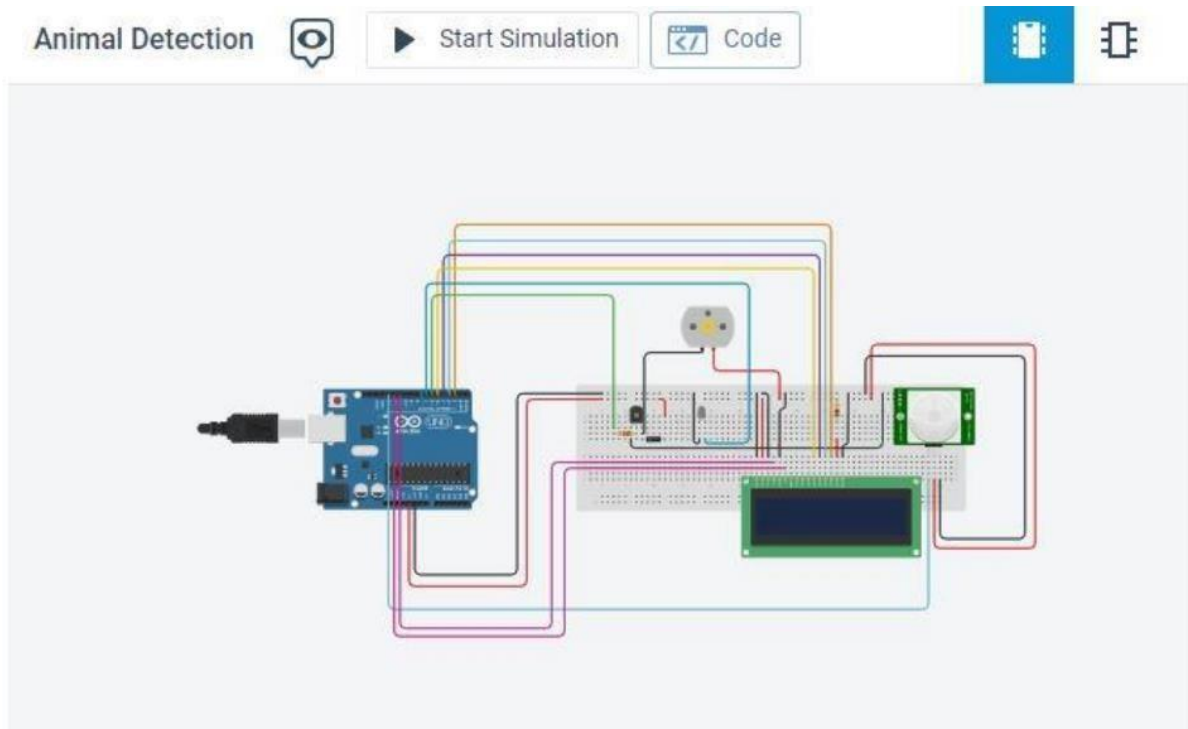
**Bird's detection circuit:** Protect the fruits and vegetables from the birds by using Piezo electric buzzer with Arduino.



**Moisture circuit:** To detect the moisture level in the soil



Animal detection circuit: without fencing, to detect the animal entering the field



## CODE:

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();
```

```
  }
```