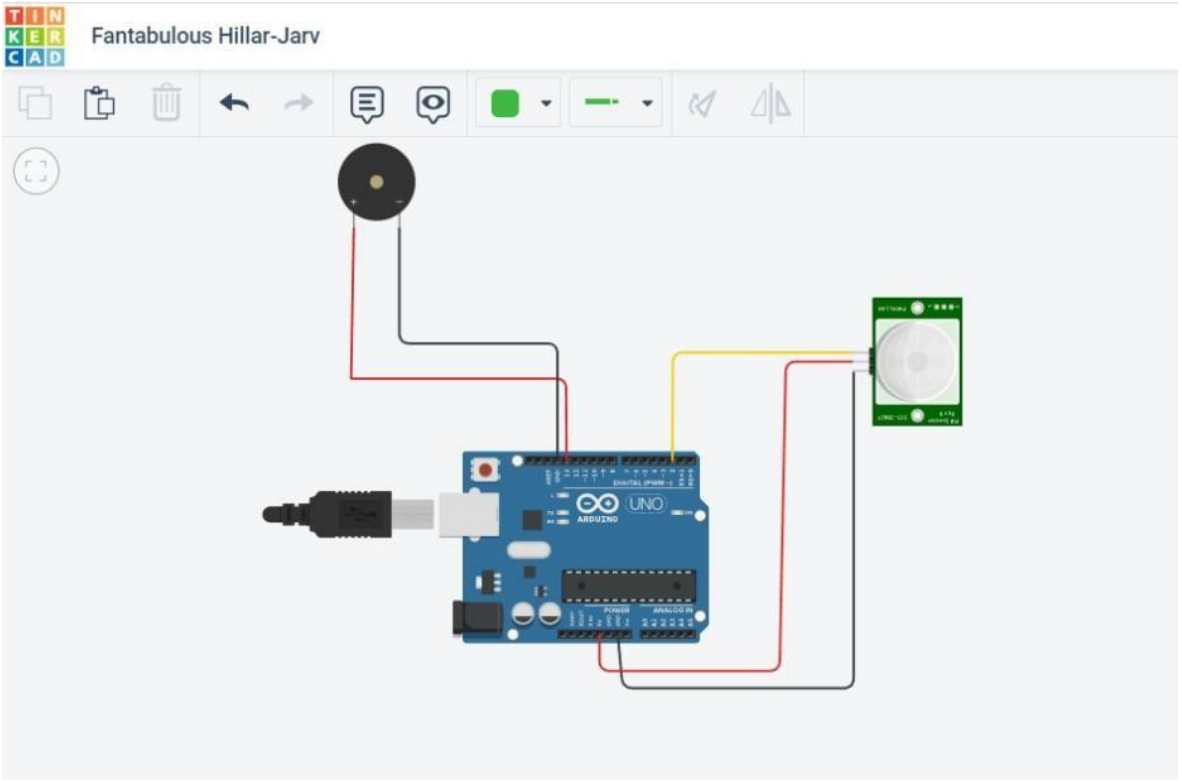
PROJECT DEVELOPMENT PHASE

SPRINT-1

Team ID	PNT2022TMID04659
Project Name	IoT Based Smart Crop Protection System for Agriculture
Date	05-Nov-2022

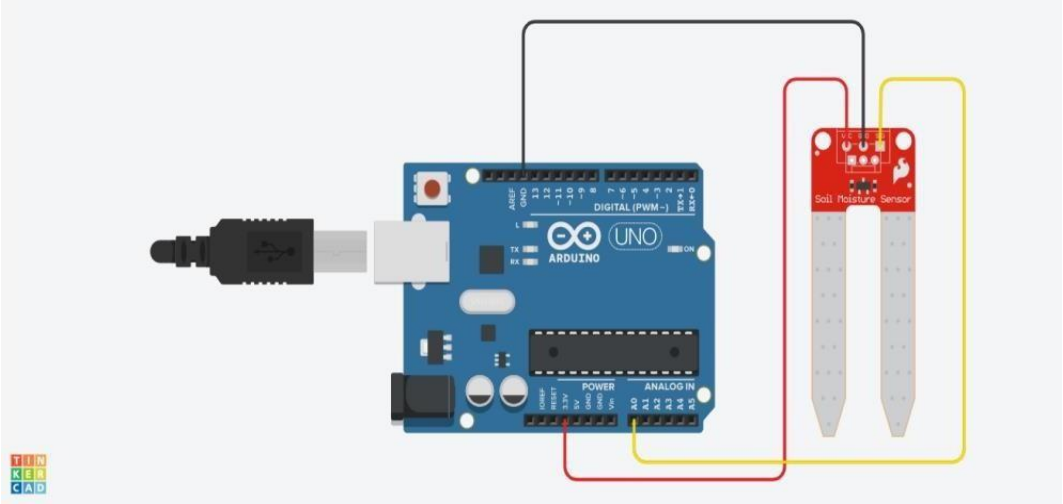
Birds Detection Circuit:

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



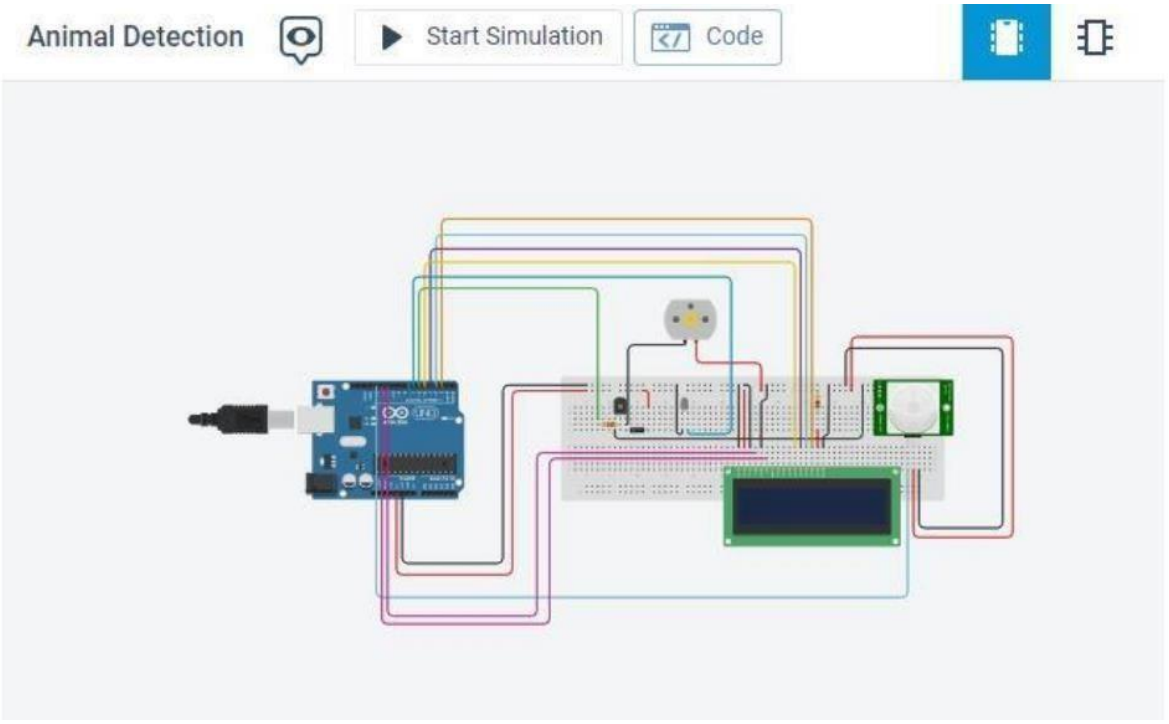
Moisture Circuit:

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,OUTPU);
}
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();

 }
```