# SPRINT-1

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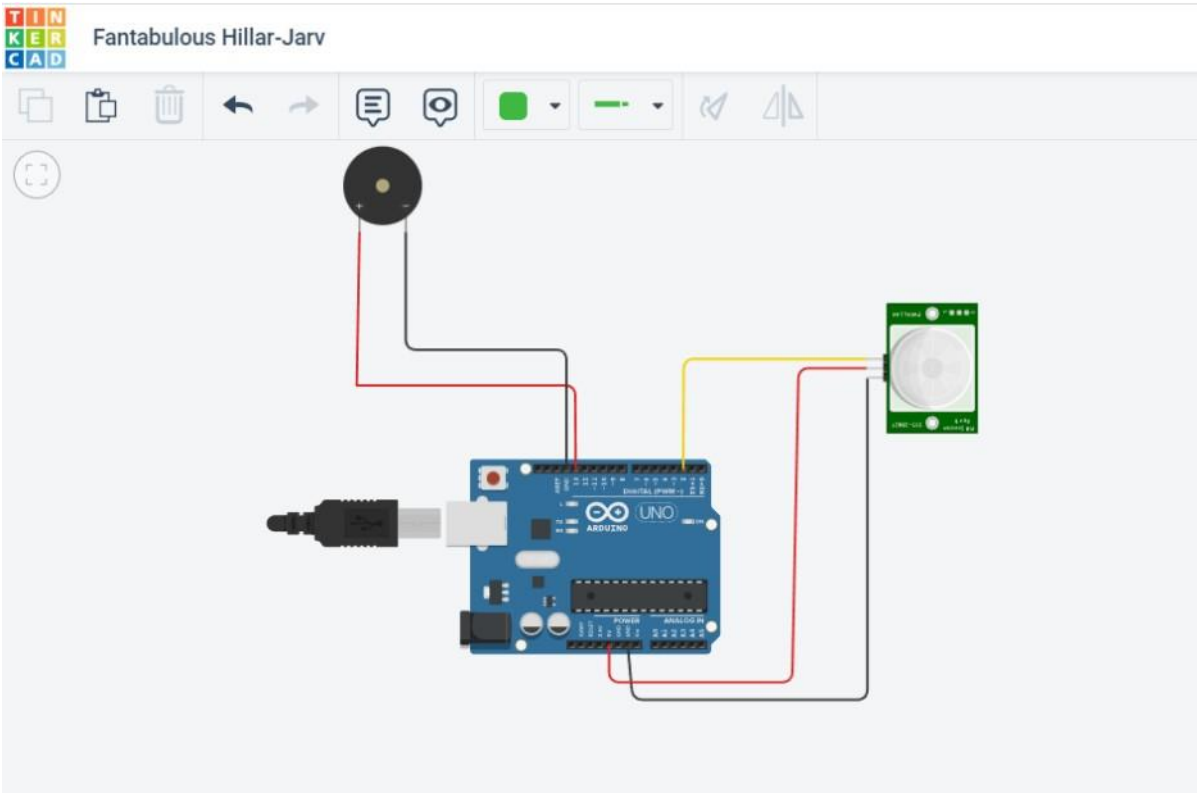
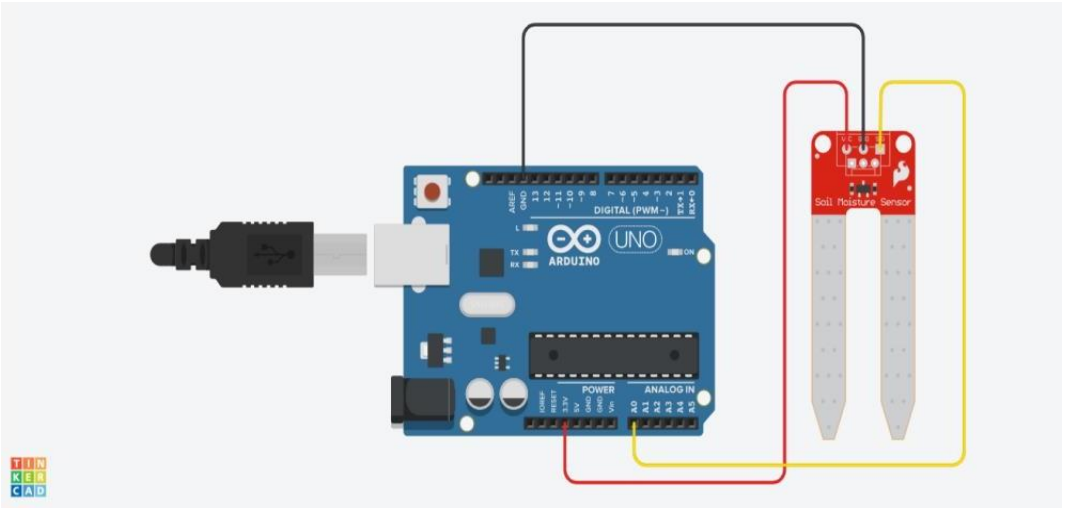
| TEAM ID | PNT2022TMID04613 |
| Project Name | IoT based smart crop protection system for Agriculture |

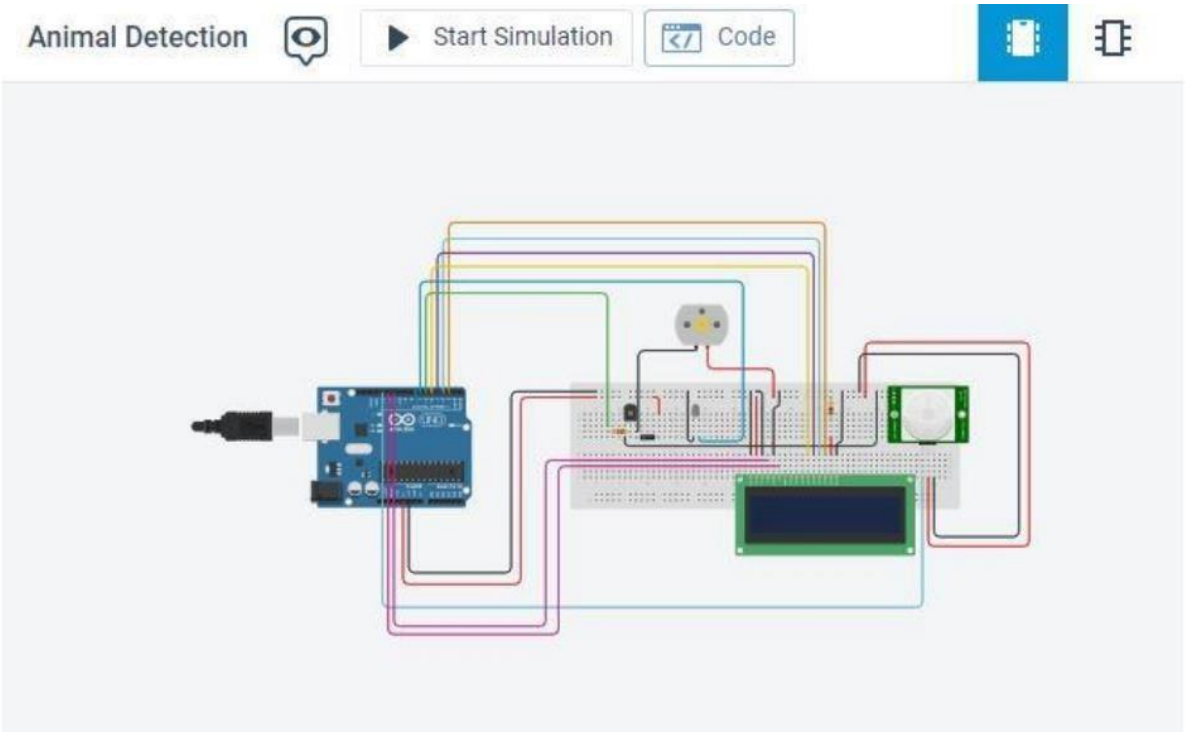
**Bird's detection circuit:** Protect the fruits and vegetables from the birds by using Piezo electric buzzer with Arduino.



Moisture circuit: To detect the moisture level in the soil




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



CODE:

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

```
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);
```

```
}
```

Animal detection circuit: without fencing , to detect theanimals 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();
 }
```