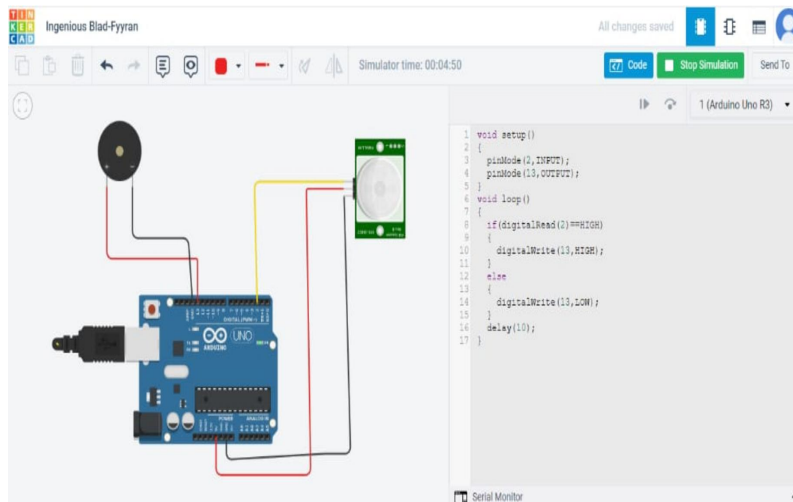


SPRINT-1

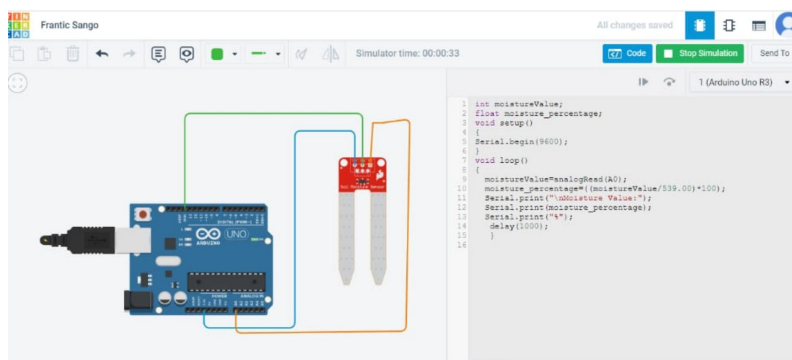
TEAM ID: PNT2022TMID49700

PROJECT NAME : IoT based smart crop protection system for Agriculture

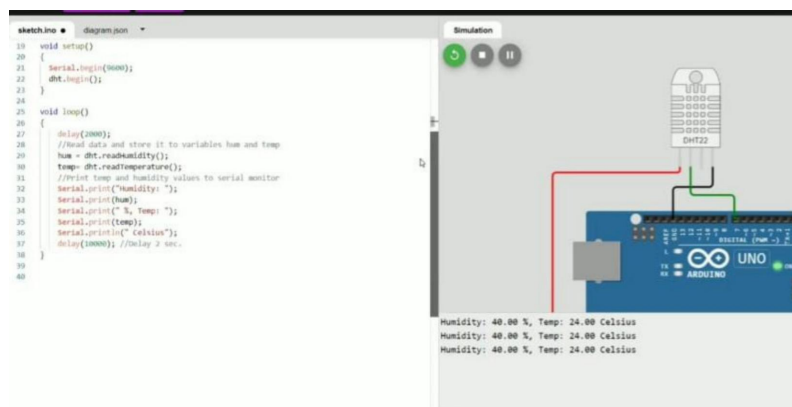
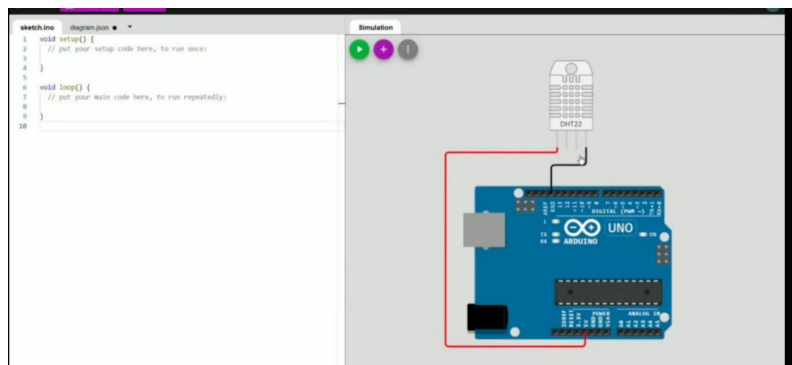
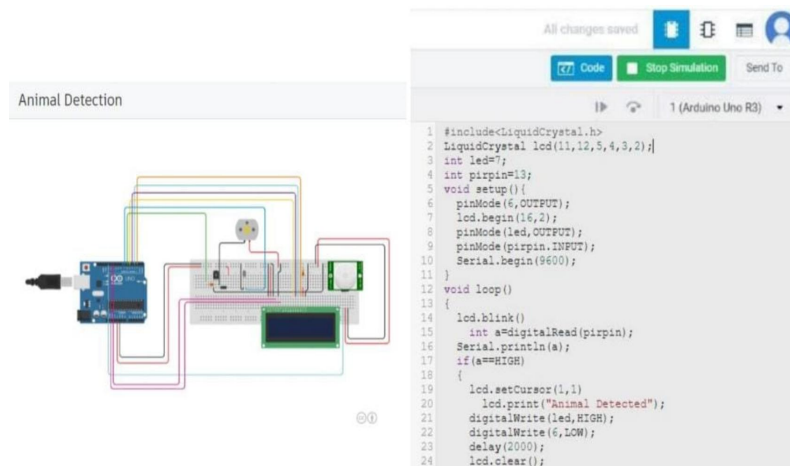
Bird's detection circuit: Protect the fruits and vegetables from the birds by using Piezo electric buzzer with Arduino.



Moisture circuit: To detect the moisture level in the soil



Animal detection circuit: without fencing, to detect the animal entry in 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();
}
}
```