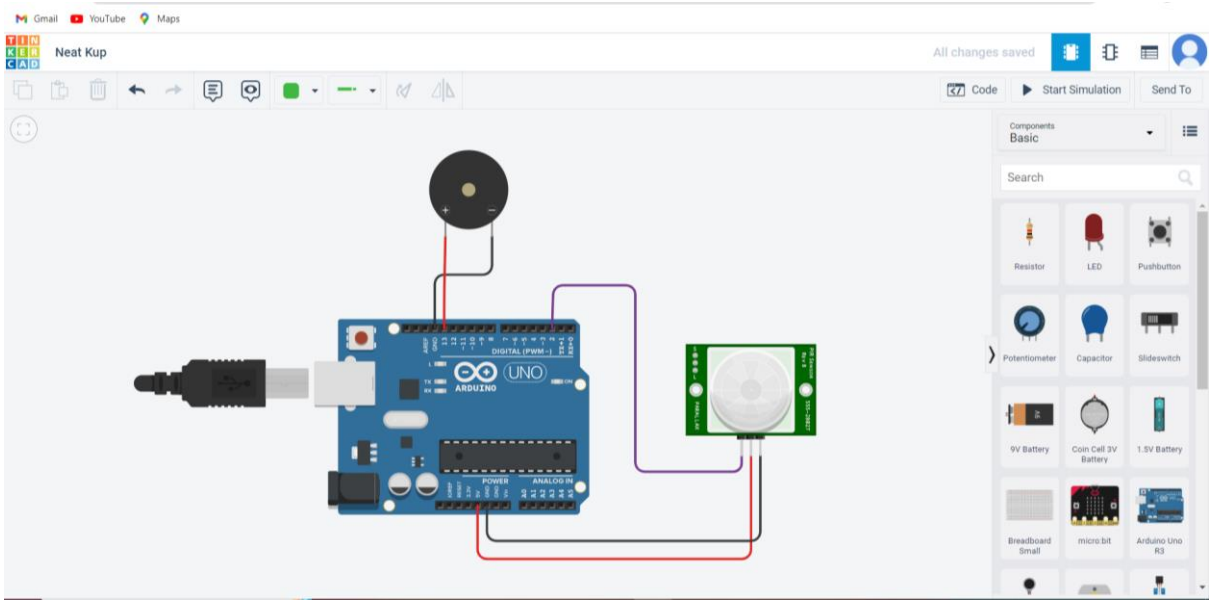
PROJECT DEVELOPMENT PHASE

SPRINT 1

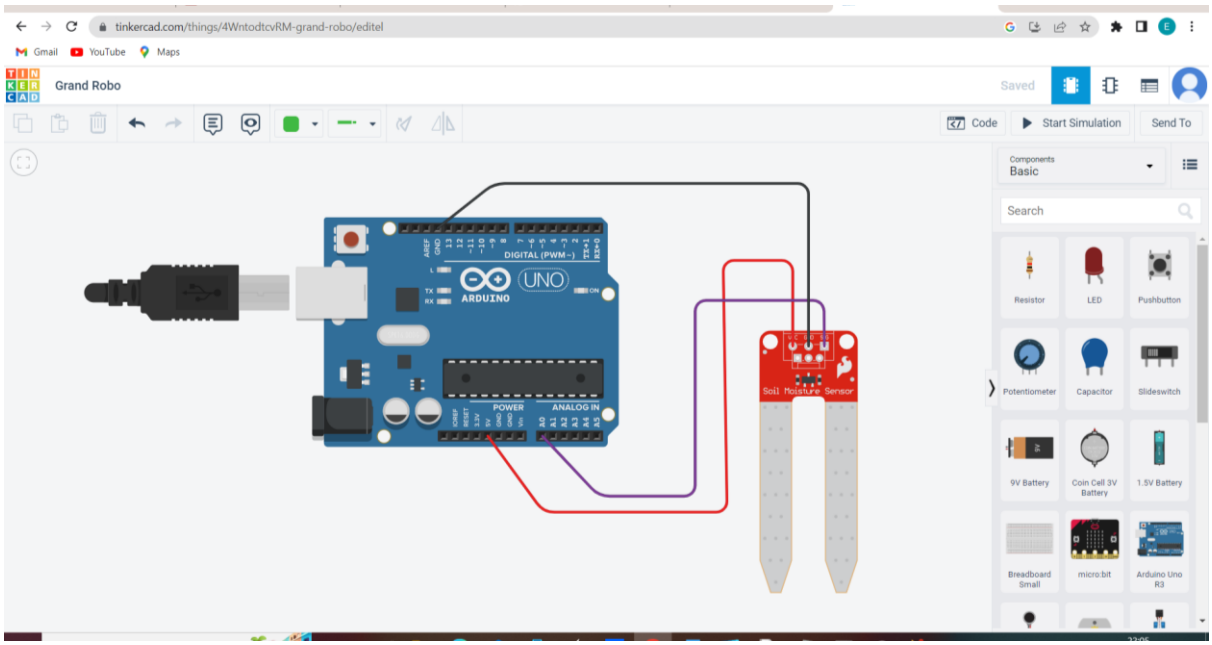
TEAM ID: PNT2022TMID29654

PROJECT NAME: IOT Based Smart Crop Protection System for Agriculture

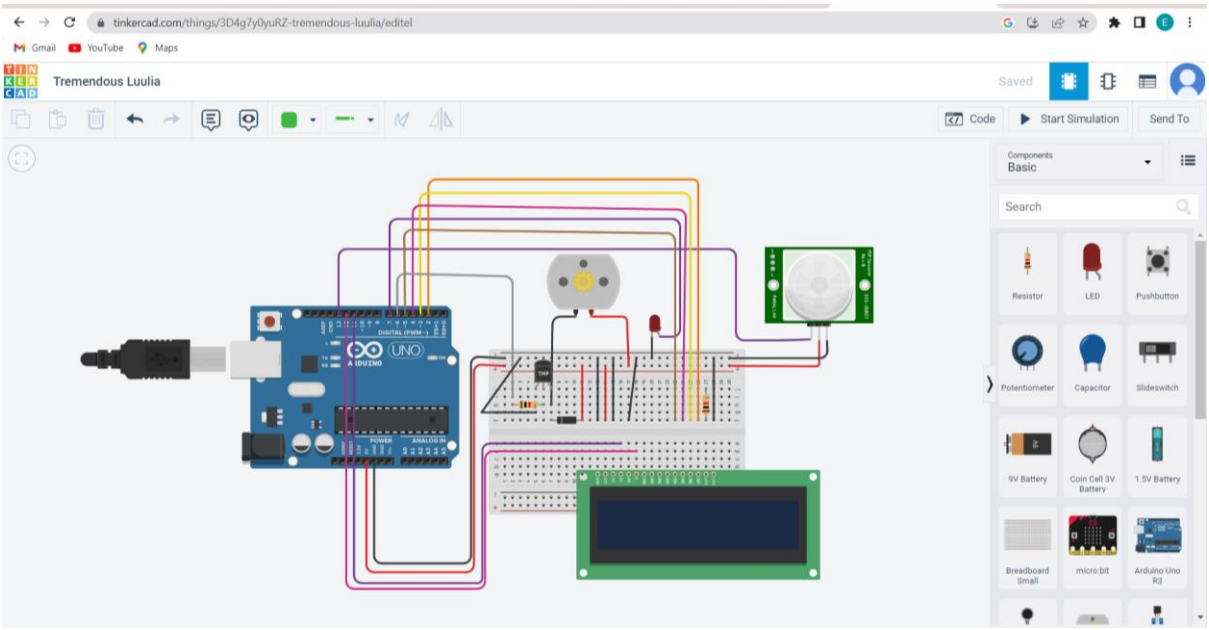
Animals and birds detection circuit:



Moisture detection circuit:



Motor circuit:



Code:

<u>Animals and Birds Detection Circuit:</u>

```
void setup()
{
pinMode(2,INPUT);
pinMode(13,OUTPUT);
}
void loop()
{
if (digitalRead(2)==HIGH)
{
digitalWrite(13,HIGH);
}
else
{
```

```
digitalWrite(13,LOW);
}
delay(10);
}
```

Soil Moisture Circuit:

```
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);
}
}
```

Motor control 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();
}
}
```