TEAM ID	**PNT2022TMID01185**
DATE	**15.11.2022**
PROJECT NAME	**SMART FARMER IOT ENABLED SMART FARMING APPLICATION SYSTEM**

```
#include <Servo.h>
Servo s;
 int Sensor = 0;
 int data = 0;
int motorPin = 9;
void setup()
{
 Serial.begin(9600); pinMode(A0,INPUT);
//Temperature Sensor pinMode(A1,INPUT);
 //Soil Moisture Sensor pinMode(10,OUTPUT);
//GREEN light for LED pinMode(11,OUTPUT);
....//BLUE light for LED pinMode(12,OUTPUT);
//RED light for LED s.attach(3);
//Servo Motor pinMode(motorPin, OUTPUT);
 //DC motor
}
 void loop()
{
 Sensor = analogRead(A1);
 //Reads data from Soil Moisture sensor data = map(Sensor,0, 1023, 0, 100);
 //Low analog value indicates HIGH moisture level and High analog value indicates LOW moisture level
 //data = map(analogValue,fromLOW,fromHIGH,toLOW,toHIGH) Serial.print("Soil Moisture value:");
 Serial.println(data);
```

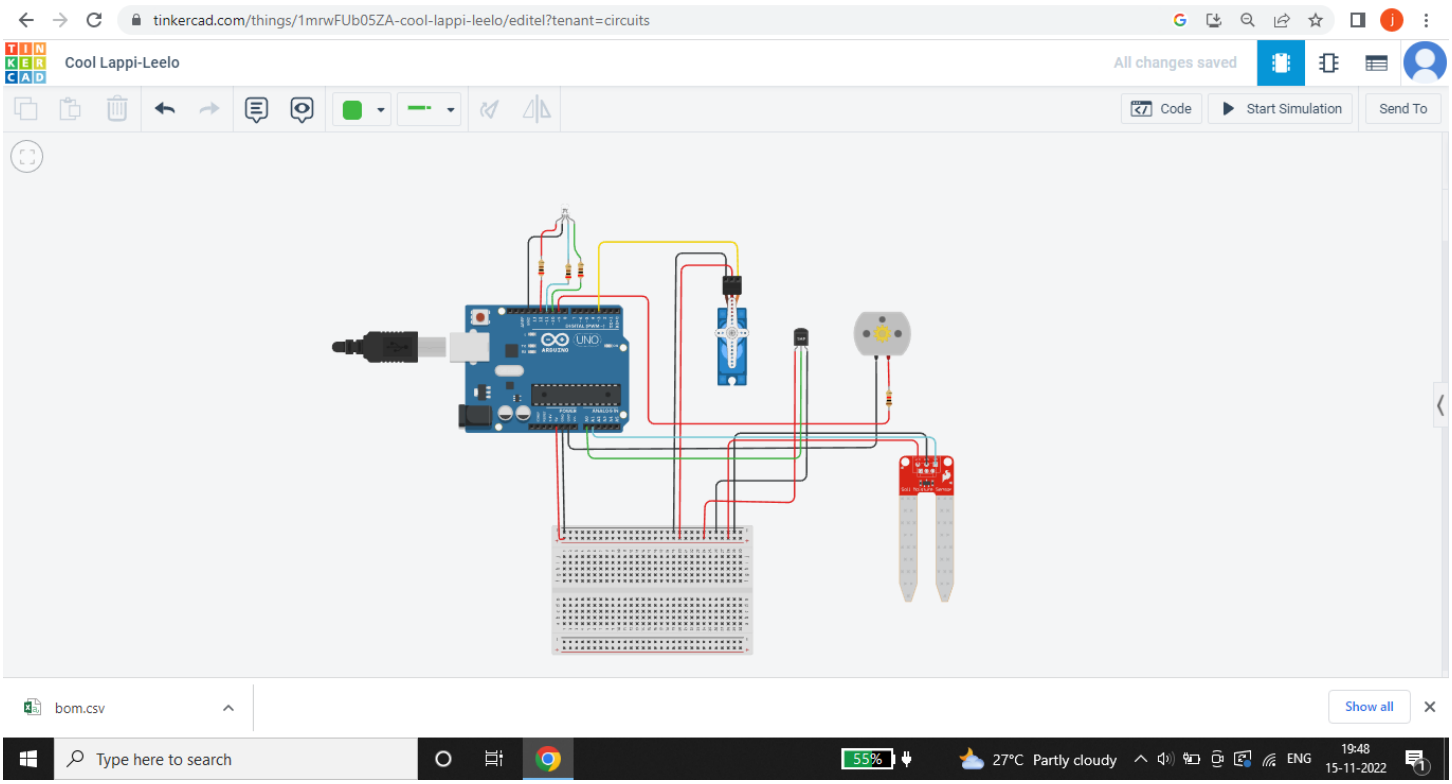
```
//'data = 0' indicates wet and 'data = 100' indicates dry double a = analogRead (A0);
//Reads data from Temperature sensor double t = (((a/1024)*5)-0.5)*100; Serial.print("Temperature value:");
Serial.println(t);
if (t>40 & t<50){
digitalWrite(10,0);
digitalWrite(11,1);
digitalWrite(12,0);
s.write(90);
digitalWrite(motorPin, HIGH);
Serial.println("Water Partially Flows");
}

else if (t>50){
digitalWrite(10,0);
digitalWrite(11,0);
digitalWrite(12,1);
s.write(180);
digitalWrite(motorPin, HIGH);
Serial.println("Water Fully Flows"); }

else if (t>30 & data<30){
digitalWrite(10,1); digitalWrite(11,1);
digitalWrite(12,0); s.write(90);
digitalWrite(motorPin, HIGH);
Serial.println("Water Partially Flows");
}
else if (data<50){ digitalWrite(10,0);
digitalWrite(11,1); digitalWrite(12,1);
s.write(90);
digitalWrite(motorPin, HIGH); Serial.println("Water Partially Flows");
```

```
 }
 else{ digitalWrite(10,1);
digitalWrite(11,0);
digitalWrite(12,0); s.write(0);
digitalWrite(motorPin, LOW);
Serial.println("Water Does Not Flow");
 }
 Serial.println("--------------------------------------------------");
delay(1000);
}
```

Circuit Diagram



Components Used

tinkercad.com/things/1mrwFUb05ZA-cool-lappi-leelo/editel?tenant=circuits

Cool Lappi-Leelo — All changes saved

Component List — Download CSV

Name	Quantity	Component
U1	1	Arduino Uno R3
R1 R2 R3	3	200 Ω Resistor
SERVO1	1	Positional Micro Servo
M1	1	DC Motor
R4	1	1 kΩ Resistor
SEN1	1	Soil Moisture Sensor
D1	1	LED RGB
U2	1	Temperature Sensor [TMP36]

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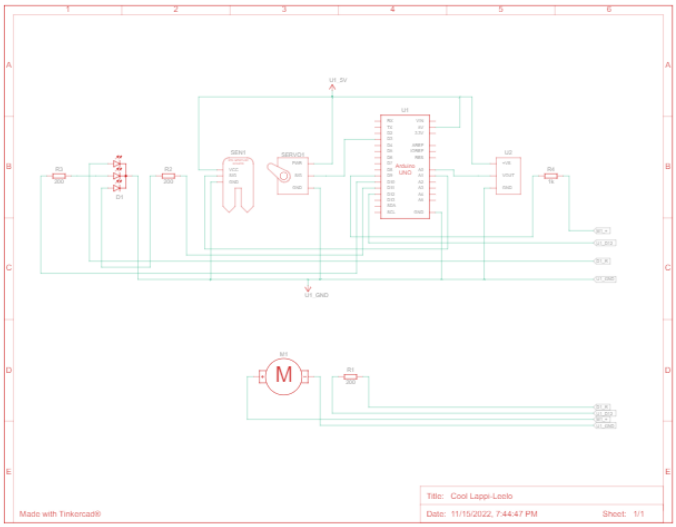
Schematic view

tinkercad.com/things/1mrwFUb05ZA-cool-lappi-leelo/editel?tenant=circuits

Cool Lappi-Leelo — All changes saved

Schematic View — Download .PDF



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