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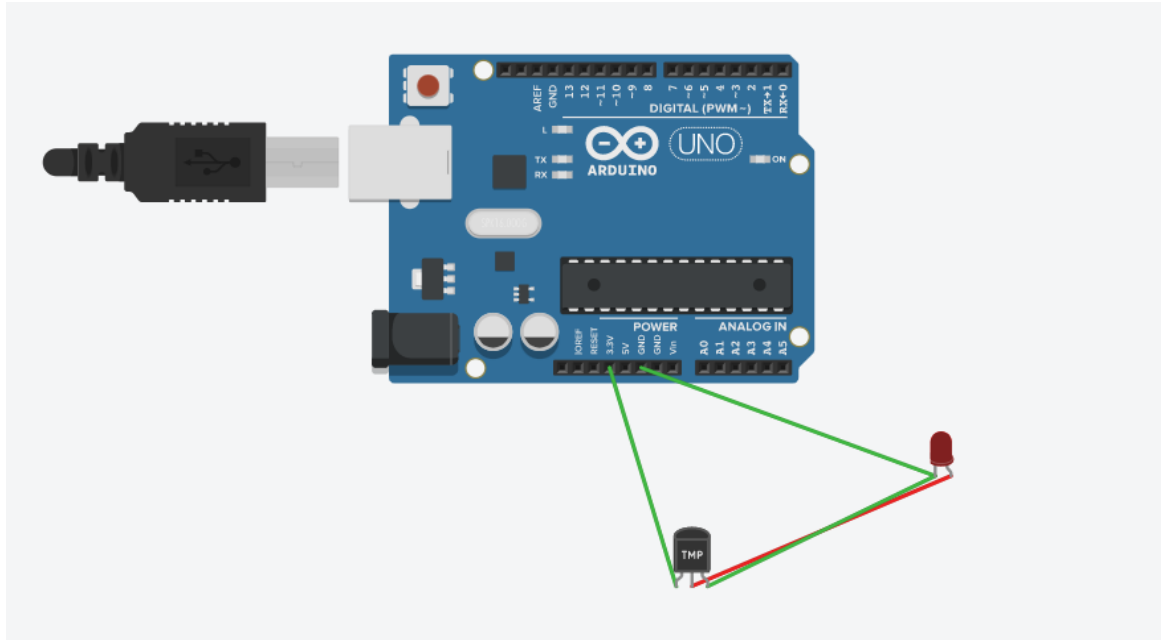Roll no. 16010221024 Class:D2

CODE FOR TEMPERATURE SENSOR

```
int celsius = 0;
int fahrenheit = 0;




void setup()
{
pinMode(A0, INPUT);
Serial.begin(9600);
}




void loop()
{
celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40, 125);
fahrenheit = ((celsius * 9) / 5 + 32);
Serial.print(celsius);
Serial.print(" C, ");
Serial.print(fahrenheit);
Serial.println(" F");

delay(1500);
```

CODE FOR ULTRASONIC SENSOR

```cpp
// C++ code
//
#define trigPin 10
#define echoPin 13
float duration, distance;

void setup() {
  Serial.begin(9600);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);

}

void loop()
{
  digitalWrite(trigPin, LOW);
  delayMicroseconds(2);
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  duration = pulseIn(echoPin, HIGH);
  distance = (duration/2)* 0.0343;

  Serial.print("Distance = ");
  if(distance>= 400 || distance <= 2){
```

```
    Serial.println("Out of range");
}
else{
  Serial.print(distance);
  Serial.println( "cm");
  delay(500);
}
delay(500);
}
```