

College of Science and Computer Engineering
Department of Computer Science & Artificial Intelligence

CCAI 436
Advanced Topics in Artificial Intelligence

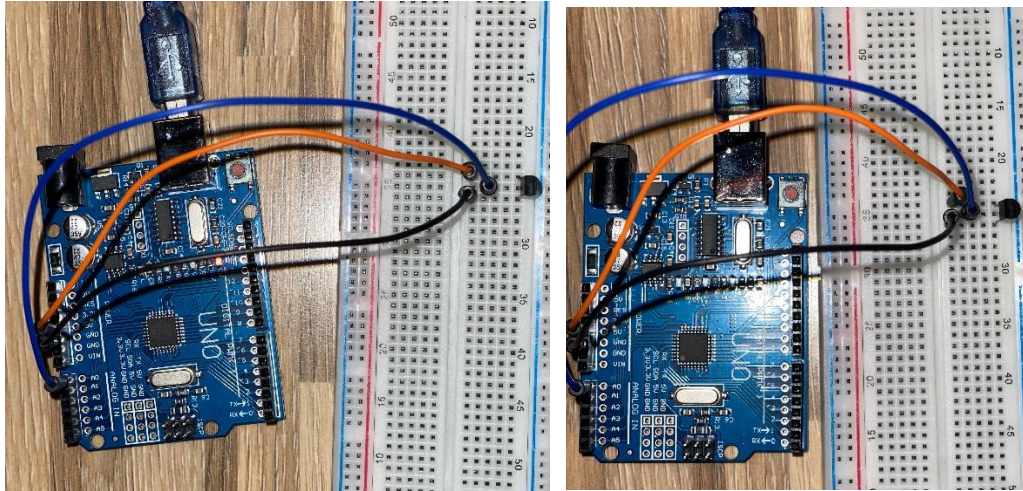


Lab#8

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2023

Lab task -hardware-

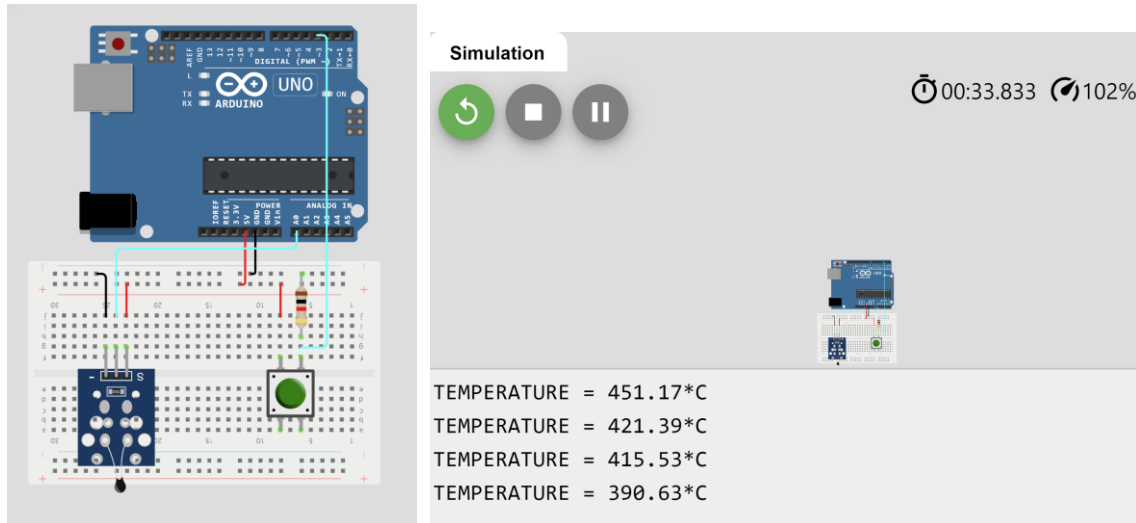


- *Code:*

```
float temp;
int tempPin = 0;
void setup() {
  Serial.begin(9600);
}
void loop() {
  temp = analogRead(tempPin);
  // read analog volt from sensor and save to variable temp
  temp = temp * 0.48828125;
  // convert the analog volt to its temperature equivalent
  Serial.print("TEMPERATURE = ");
  Serial.print(temp);
  Serial.print("*C");
  Serial.println();
  delay (1000);
}
```

Lab task -software-

with an extra feature: when the button is pressed, the temperature will be displayed.



- *Code:*

```
float temp;
int buttonState;
int tempPin = 0;
int pushButtonPin=3;

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

void loop() {
  buttonState = digitalRead(pushButtonPin);
  if(buttonState==HIGH){
    temp = analogRead(tempPin);
    // read analog volt from sensor and save to variable temp
    temp = temp * 0.48828125;
    // convert the analog volt to its temperature equivalent
    Serial.print("TEMPERATURE = ");
    Serial.print(temp);
    Serial.print("*C");
    Serial.println();
    delay (500);
    buttonState=LOW;
  }
}
```

- Code link: [Lab 8 task](#)