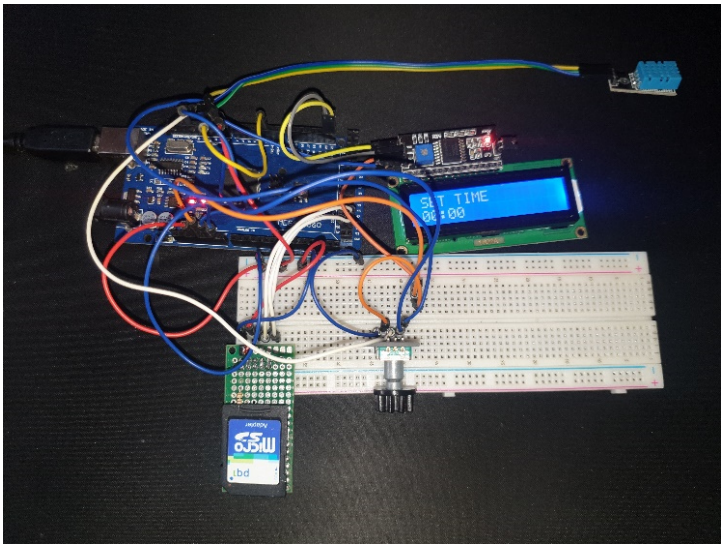
Chiritoiu Dragos

Temperature and Humidity Sensor

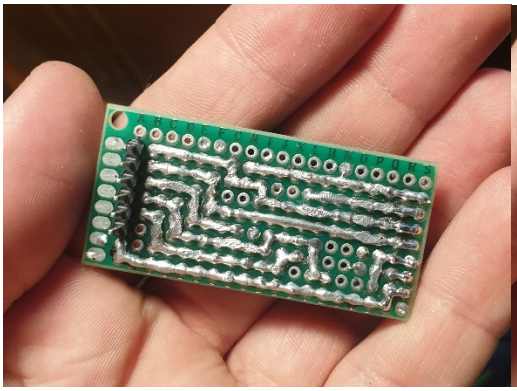
This project uses a DHT11 sensor to measure temperature and humidity and then writes them on an SD card every minute.

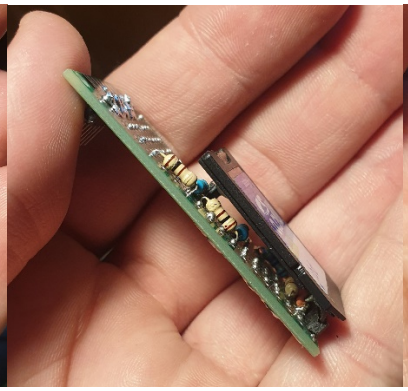


COMPONENTS

- Arduino Mega 2560
- LCD 16x2 I2C
- Rotary encoder HW-040
- Homemade SD card module
- DHT11 sensor

Homemade SD card module

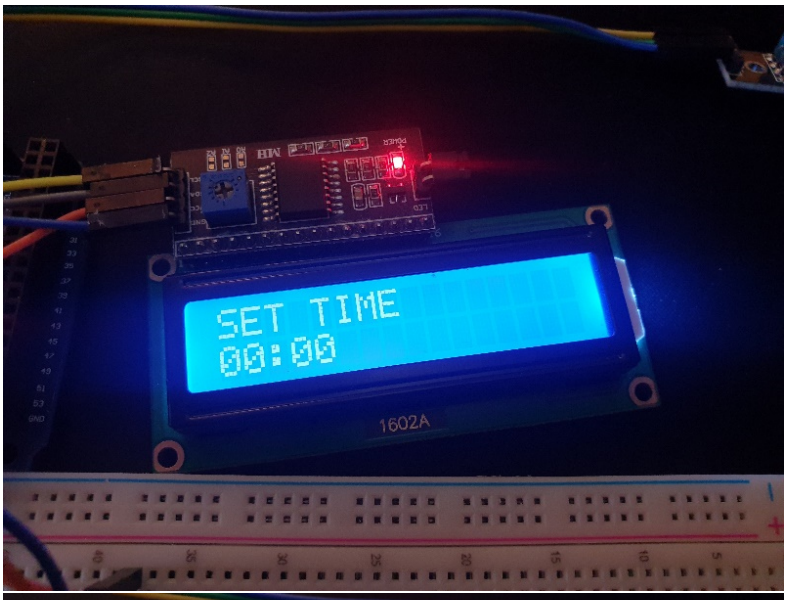


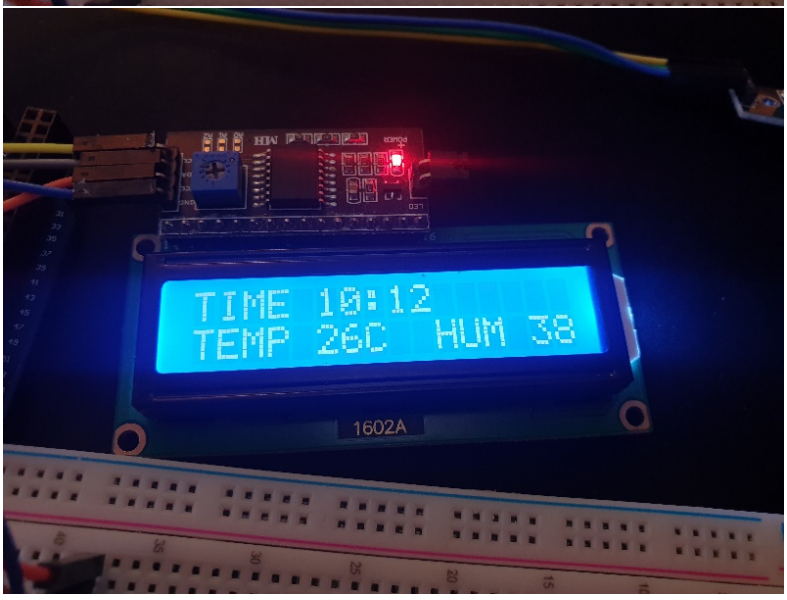


Arduino provides 5V out of its pins and a SD card uses 3.3V, so I was using a voltage divider on these 3 pins.

HOW IT WORKS?

Once the code has been uploaded, I set the time with the encoder. Rotate to select the hour and then push to select the minute. Push one more time to start the cycle.





From now onward, the temperature, humidity and time will be saved on SD card every minute.

I have gathered two days worth of data and created two Excel charts.