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Professor Joy
COSC 365 - 001
10/27/2022

Progress Report

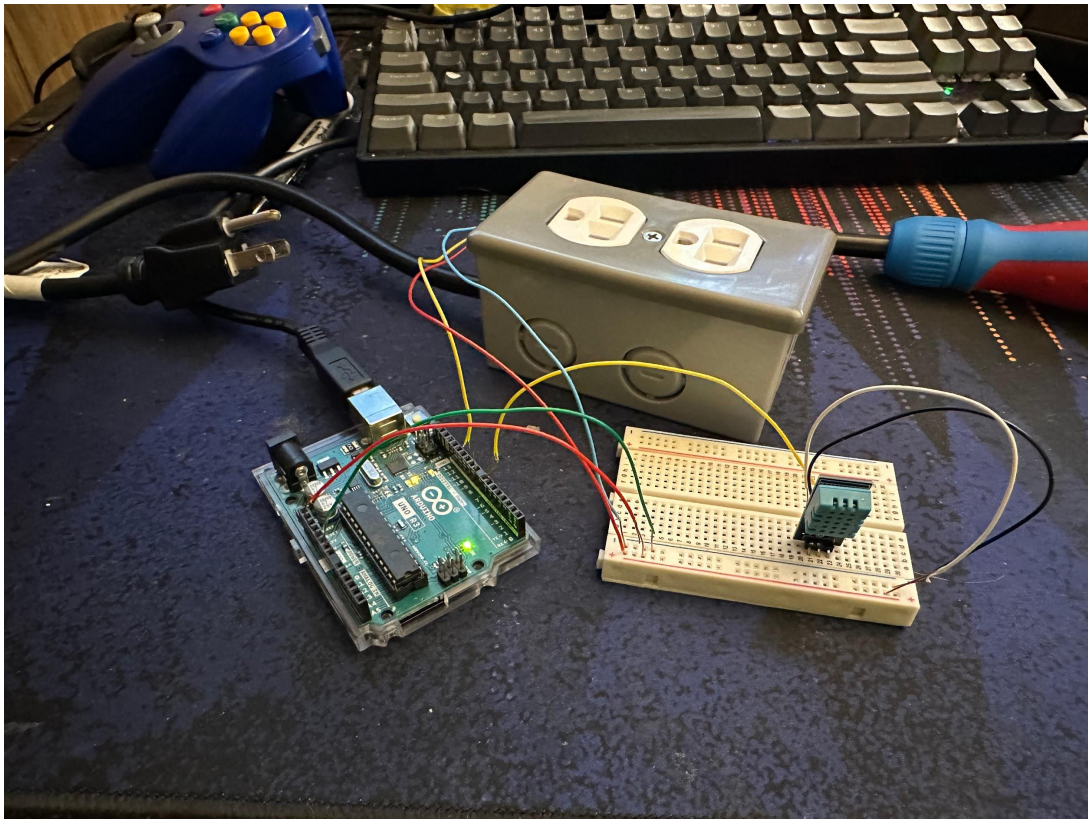
Name : Code Classified

1. Summary of tasks accomplished in this week

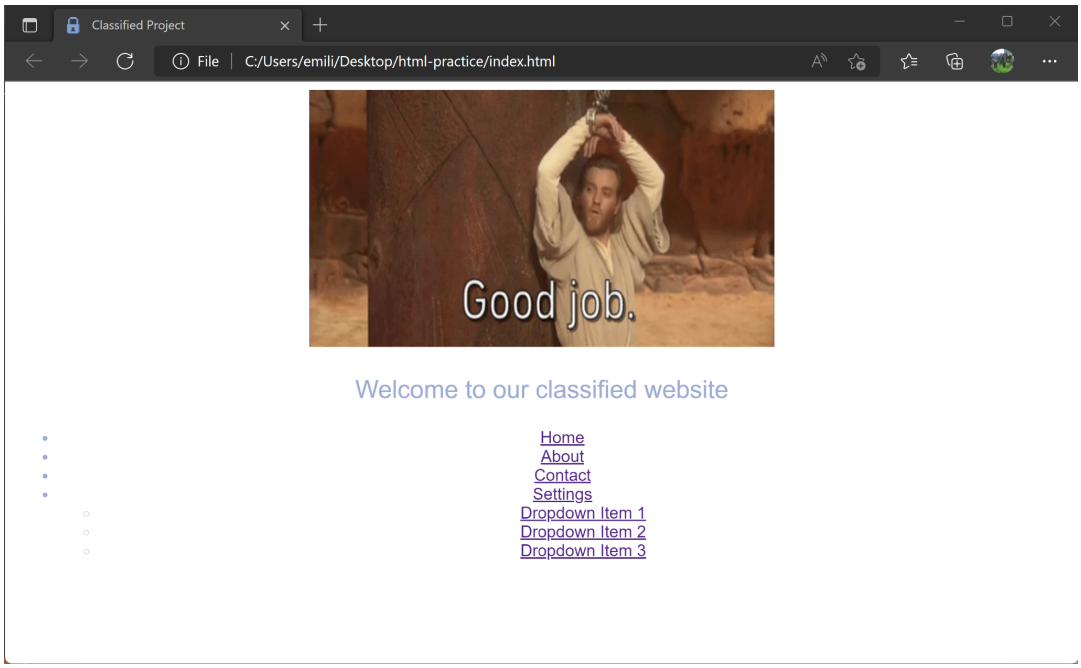
This week, the process of incorporating the humidifier sensor into arduino code is finished. The code we've put together so far is a combination of the default DHT sensor libraries, and a very simple IF/ELSE statement. If the sensor measures the humidity is below a certain threshold, the arduino sends a high signal to the 5v relay to turn on the power, thus turning on the humidifier. If the sensor measures the humidity is above a certain threshold, then the arduino sends a low signal to the relay to turn off the power, turning off the humidifier.

```
// Example testing sketch for various DHT humidity/temperaturesensors
// Written by ladyada, public domain

// REQUIRES the following Arduino libraries:
// - DHT Sensor Library: https://github.com/adafruit/DHT-sensor-library
// - Adafruit Unified Sensor Lib:
https://github.com/adafruit/Adafruit_Sensor

#include "DHT.h"

#define DHTPIN 7     // Digital pin connected to the DHT sensor
// Feather HUZZAH ESP8266 note: use pins 3, 4, 5, 12, 13 or 14 --
// Pin 15 can work but DHT must be disconnected during program upload.

// Uncomment whatever type you're using!
#define DHTTYPE DHT11   // DHT 11
//#define DHTTYPE DHT22   // DHT 22  (AM2302), AM2321
//#define DHTTYPE DHT21   // DHT 21 (AM2301)

// Connect pin 1 (on the left) of the sensor to +5V
// NOTE: If using a board with 3.3V logic like an Arduino Due connect pin
1
// to 3.3V instead of 5V!
// Connect pin 2 of the sensor to whatever your DHTPIN is
// Connect pin 3 (on the right) of the sensor to GROUND (if your sensor
has 3 pins)
// Connect pin 4 (on the right) of the sensor to GROUND and leave the pin
3 EMPTY (if your sensor has 4 pins)
// Connect a 10K resistor from pin 2 (data) to pin 1 (power) of the sensor

// Initialize DHT sensor.
// Note that older versions of this library took an optional third
parameter to
// tweak the timings for faster processors.  This parameter is no longer
needed
// as the current DHT reading algorithm adjusts itself to work on faster
procs.
DHT dht(DHTPIN, DHTTYPE);

void setup() {
  pinMode(8, OUTPUT); // connected to S terminal of relay
  Serial.begin(9600);
  Serial.println(F("DHTxxtest!"));

  dht.begin();
}

void loop() {
  // Wait a few seconds between measurements.
  delay(2000);

  // Reading temperature or humidity takes about 250 milliseconds!
  // Sensor readings may also be up to 2 seconds 'old' (its a very slow
sensor)
  float h = dht.readHumidity();
  // Read temperature as Celsius (the default)
  float t = dht.readTemperature();
  // Read temperature as Fahrenheit (isFahrenheit = true)
  float f = dht.readTemperature(true);

  // Check if any reads failed and exit early (to try again).
  if (isnan(h) || isnan(t) || isnan(f)) {
    Serial.println(F("Failedto read from DHT sensor!"));
    return;
  }

  // Compute heat index in Fahrenheit (the default)
  float hif = dht.computeHeatIndex(f,h);
  // Compute heat index in Celsius (isFahreheit = false)
  float hic = dht.computeHeatIndex(t,h, false);

  if(h >= 60) {
    digitalWrite(8,HIGH);
    Serial.println(F("Thelight is ON"));
  }
  else {
    digitalWrite(8,LOW);
    Serial.println(F("Thelight is OFF"));
  }

  Serial.print(F("Humidity:"));
  Serial.print(h);
  Serial.print(F("% Temperature:"));
  Serial.print(t);
  Serial.print(F("°C"));
  Serial.print(f);
  Serial.print(F("°F Heat index: "));
  Serial.print(hic);
  Serial.print(F("°C"));
  Serial.print(hif);
  Serial.println(F("°F"));
}
```

The prototype build of the project has also been completed, using a breadboard while our permanent solution ships.



A website is in the makings, so far there is a basic tab and website sketch along with some menu buttons that will be incorporated as drop down tabs on the web page.


Classified Project
File | C:/Users/emili/Desktop/html-practice/index.html
Good job.
Welcome to our classified website
Home
About
Contact
Settings
Dropdown Item 1
Dropdown Item 2
Dropdown Item 3

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <title>ClassifiedProject</title>
    <link rel="shortcut icon" type="image/jpg"
href="C:\Users\emili\Desktop\HTML\Images\favicon.ico"/>

</head>
<!--First section-->
<title>My own website!</title>

      <style>
        body {
        text-align: center;

                    background-image:
url("https://www.google.com/imgres?imgurl=https%3A%2F%2Fd3912hkdp2esp1.clo
udfront.net%2Fimg%2Fphoto%2F220417%2F220417_00_2x.jpg&imgrefurl=https%3A%2
F%2Fwww.youworkforthem.com%2Fphoto%2F220417%2Fblack-a-crumpled-paper-
texture&tbnid=WxUIB5AGsuBw9M&vet=12ahUKEwjw9s7BhoP7AhUwEGIAHVuKCysQMygEegU
IARDXAQ..i&docid=uQdAmBYu6O8GXM&w=1184&h=932&q=crumbled%20black%20paper&ve
d=2ahUKEwjw9s7BhoP7AhUwEGIAHVuKCysQMygEegUIARDXAQ");
                    background-image:enable;
                    color:rgb(149, 172, 217);
                    font-family: Helvetica;
                    background-size: cover;
                    background-position:center center;
                    background-repeat:no-repeat;
                    background-attachment:fixed;
             }

            p {
              font-size: 24px;
              }
      </style>
  <body>
                <img src="C:\Users\emili\Desktop\HTML\Images\Obi-Wan-
Good-Job-08182017.gif"width="450" height="250" />
                <p>Welcome to our classified website</p>
      </body>
  </html>
<html>
  <body>
    <div class="nav-container">
      <ul class="nav-items">
        <!-- Navigation -->
        <li class="nav-item"><ahref="#">Home</a></li>
        <li class="nav-item"><ahref="#">About</a></li>
        <li class="nav-item"><ahref="#">Contact</a></li>
        <!-- Dropdown menu -->
        <li class="nav-item nav-item-dropdown">
          <a class="dropdown-trigger"href="#">Settings</a>
          <ul class="dropdown-menu">

            <li class="dropdown-menu-item">
              <a href="#">DropdownItem 1</a>
            </li>
            <li class="dropdown-menu-item">
              <a href="#">DropdownItem 2</a>
            </li>
            <li class="dropdown-menu-item">
              <a href="#">DropdownItem 3</a>
            </li>
          </ul>
        </li>
      </ul>
    </div>
  </body>
</html>
```

2. Each team member's contribution for tasks completed

Rob: Prototyping the code
Emilie: Website for project
Pearl: Project Proposal
Faisial: Research

3. Summary of unfinished tasks and reasoning

At the moment, all of our equipment is set except that we have a temporary breadboard that we are using in the project.

4. Tasks for the coming week

We currently have a prototype of what we have in mind for using the Arduino and the sensor but due to the temporary breadboard that we have at the moment, the plans that we have for the next upcoming weeks is getting a new breadboard - ElectroCookie, which should be here by Tuesday. Checking the Arduino code to run successfully on either Windows or Mac laptop and then test the sensors on 2 different humidifiers. For the website more incorporations for home page, materials, and information will be implemented to better help the user navigate through.

5. Copy or link of the materials you reviewed this week if there is any

(New Breadboard)https://www.amazon.com/gp/product/B07ZV8FWM4/ref=ppx_yo_dt_b_asin_title_o00_s00