

Log Book By Oleg Skronskiy

October 18: Got an idea for a project. Can a humidity sensor save time in a dryer? I did some research on what sensors drying machines have. Only moisture sensors not humidity. Reason? It is generally cheaper to use than humidity.

October 28: Contacted a coding teacher Dmitry Sadakov. He gave me a basic coding outline and an idea for a design. Fan with a rotating platform with a towel holder to hold the towel for drying. Planed with a distance sensor to make it fully automatic and a humidity sensor to read the humidity.

Nov 4: Research mostly finished. Starting to add things to the design. Replaced the old motherboard with a newer one with wifi if needed. Esp32. Starting to add some of the materials into the cart to buy.

Nov 15: Removed the spinning platform out of the design for the sake of simplicity and time. Added a relay to the design to make it turn the fan on and off with some code. Started the code with a template that my expert gave me. Did some research on how the different parts and sensors in my design work.

Nov 19: Looked at how to use a relay how to add it in between the wires for it to work and how to do it safely. Looked into which humidity sensor was needed for my design.

Nov 22: Asked my expert for the final materials needed because I was hoping to order them the same day but I needed to make a few changes first so I did.

Nov 24: Ordered all of the parts for the design. Did a rough model with the item I already had to possibly finish the initial design faster.

Dec 20: Starting to work on my presentation. Found a good slideshow template from Olga Skorinskaya. Started to do my header slide, hypothesis, and explanation of how the humidity sensor works.

Dec 26: Added a couple of slides like analysis(what I learned so far) and procedure that I was following.

Dec 29: All the materials came except the two motherboards (one as an extra if I break the other one). Started to make the relay and the fan mechanism but then realized that the fan was too high voltage for the relay so decided to make the whole thing a more simple demonstration. Removed the towel holder, fan, and distance sensor.

Jan 2: The motherboards came and I finished building the design. Did some more coding.

Jan 3: Did all of the “Normal” tests without any human interaction whatsoever. Tested bits of code and seems to be that everything is working and nothing came damaged.

Jan 4: Mostly finished the code and tested it. It was not working so I called my expert and he helped me debug it but it was still not working so we decided to just remove the clock/timer aspect of the project.

Jan 5: The presentation is almost finished. The only left is to add a few more sources that I forgot to add at the beginning and make some changes.

Jan 6: Added my changes to the presentation and added a slide: "Why did I use a humidity sensor instead of a moisture sensor?" Finished the human interaction tests. The results were very similar to each other only having a few minute intervals.

Jan 7: Tested the design and everything seemed to be working and ready to go. Practiced presenting to my parents and some of my friends.

Jan 10: Presented to my classmates and got some feedback and interesting questions.

Jan 18: Got full feedback from my teacher and added that to my presentation.

Jan 20-21: I forgot to log Jan 16 so adding it here. Both days were printing slides off and designing a good title.

Jan 24: Got a trifold from my teacher. Putting a layout on the trifold with my printed slides. Needed some background so added that to my list of materials needed to get for the trifold.

Jan 27: Got the materials needed to finish my trifold and started gluing some of the backgrounds and the slides.

Jan 28: Finished the trifold. Glued all the slides on it.

Jan 30: Reprinted some of the slides and glued them on the trifold.

Feb 2: Went to get judged but school judges and everything went well. They asked me questions that I could answer in detail and they were very interesting questions.

Feb 8: Got news that I got into CYSF! I am very happy to hear that!

From Feb 12-22: Went on some meetings for CYSF participants and worked on some of my slides. Ordered a welding kit to weld my sensor and the wires together. Also got the feedback from the judges and added that to my slides.

Feb 29, March 4,5,6: Worked on getting all my data into the CYSF site.

Mar 10: Adding my logbook on a doc for easier uploading into the CYSF site. Also filmed the video of my presentation. Possibly other future logs may not be able to upload. The reason for that is the not able to change anything online after march 15.