Project: S.H.D (*Not Complete*)

Project Start Date: 3/23/21
Team Members: Earl

Overview:

This project will be a mechanism made via mini servo motors, in which it will be used to automatically hunt for a ⭐***SHINY***⭐ starter Pokemon on the Nintendo DS. This type of Pokemon has a 1/8192 chance of appearing - this device will automatically reset the Nintendo DS until these odds are reached. It will be made originally for *Pokemon Black/White 2* and may be edited for additional purposes.

Project Resources & Links:

- Tinkercad Base Structure Design
    - 192x79
- Tinkercad Servo Motor Design
- Design Inspiration
    - 
- Arduino Color Sensing Tutorial

Next Steps:

This is a list of the next steps for this project. Next time you work on it, these are the steps you are going to work on. Each time you work on this project, you might add or re-order these tasks.

- 3D print structure in which the design will be built upon
- Model the Servo Motor positions on Tinkercad

- Practice writing C++ in order to give instructions to mechanism
- Figure out how to program a color sensor
- Begin assembling the design (servo motors, wires, color sensor)
- Test the device to see if it can successfully soft reset and complete a full cycle.
- Finalize by leaving on overnight to see if it could successfully detect the presence of a ⭐***SHINY***⭐.

<4/22/2021> I'm going to try to finalize the code.

What Was The Plan:

Today, I wanted to complete roughly about 80% of the programming, which wouldn't be that bad. Then, I'd be able to fiddle around with the color sensor.

What I Learned:

I learned how to position the mini servo motors so that they can push four buttons at once. Also, I learned the primary color difference between a normal Tepig and a shiny Tepig - the G-value. It is the only value that changes when evaluating both images.

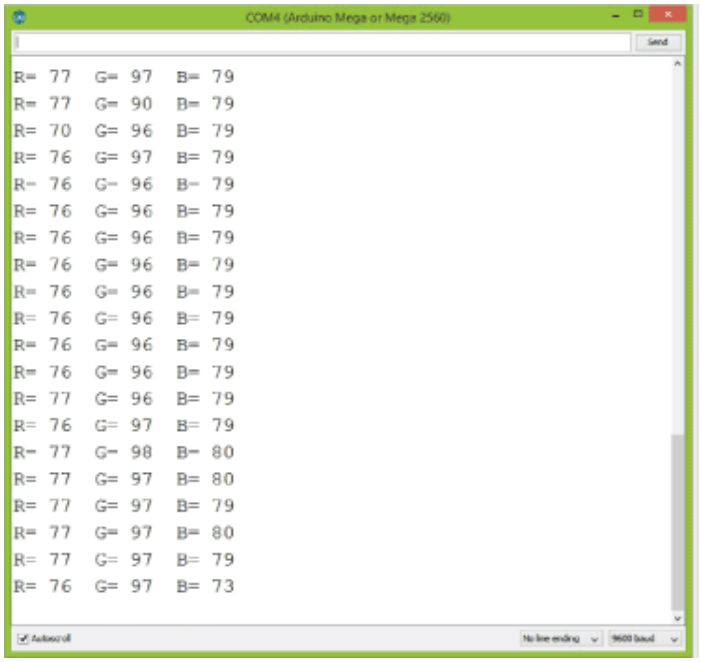
What Worked - What Steps Did I/We Solve:

- I programmed a majority of the code - only missing the code for the color sensor.
- I was able to properly set up and wire the color sensor.

Challenges, Questions, or Roadblocks:

- At one point, I came across the issue of how to distinguish between each variation of Tepig. It was very difficult, because they are each different shades of yellow, which means the color sensor would need very accurate readings to determine if it is different or not.
- How do I code the color sensor? I found source code that helped me test it out, though I still don't understand how to program it to my liking.

Details & Descriptions:



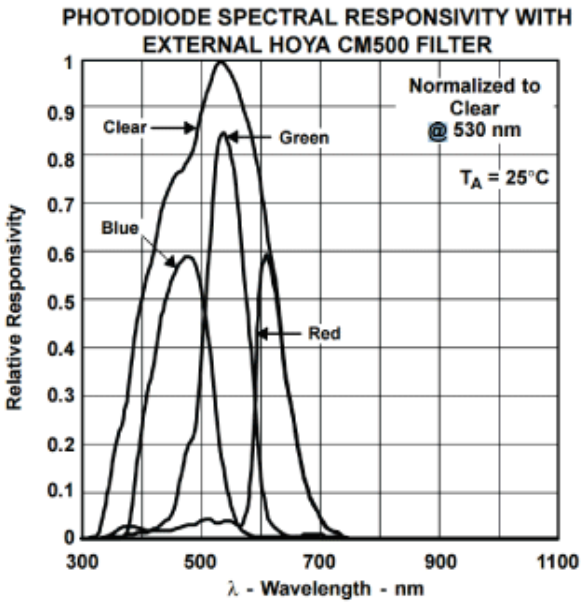


*Figure takan from the TCS230Sensor datasheet

Team Members: Earl

<4/27/2021> Title

What Was The Plan:

What I Learned:

What Worked - What Steps Did I/We Solve:

-

Challenges, Questions, or Roadblocks:

Details & Descriptions:

Team Members: Earl

<10/29/2021> Title

What Was The Plan:

Tell a short story about what you wanted to do today…

What I Learned:

Briefly tell what you learned… What did you not know and now you do?

What Worked - What Steps Did I/We Solve:

- Short description of what your team did today… Date driven... as you enter entries, keep the latest at the top. Also, whenever you post an update here, also update the Project Resource Page as well…
- Other things that worked…

Challenges, Questions, or Roadblocks:

List all the current issues that are a challenge and preventing forward progress on this project

- Next step..
- Next Step…

Details & Descriptions:

Here you can do into a deep dive of what you did. Show images and diagrams, and more detailed descriptions on how to recreate the work. The goal is to let someone else be able to replicate your work… so more information can go here.

Team Members: <list the individuals who worked on this entry>
