

DBB100 Reflection Challenge 2

Plan

My plan for this challenge was to extend my poster from the first challenge with Teensy functionalities. All of the shapes on this poster are fixed in size, so I wanted to be able to change the look of the poster by using the Light Dependent Resistor. The closer to the sensor, (thus the lower the amount of measured light) the smaller the shapes on the poster. I wanted to achieve this by using *scale*. I also used tactile switches to change the outcome of the poster.

Approach

Before starting the premaster, I already knew how to code basic things in HTML, CSS, Javascript and PHP. Working with Processing and a Teensy however, is completely new to me. When working on this challenge I struggled most with getting the sensors and switches on the Teensy to work. I spent quite some time on this to make sure that I understand what happens, instead of duplicating an example/tutorial. I did this by connecting different sensors and switches and studying the data they retrieved, so that I could get a feeling of what these elements can do.

For the final result, I made the LDR sensor work properly first. After which I had to figure out how to pass the measured values. This had to happen in such a way that I could use them in my if statements in Processing. After making some alterations like removing the whitespace characters and converting to *int*, I could combine the sensor data from the Teensy with the visuals on the poster.

Learnings

After working on this second challenge I've learned that I struggle most with connecting the sensors, switches, and other parts correctly to the breadboard and Teensy. I sometimes felt like the connection failed, so soldering might help to get a more stable result. The programming part in Arduino and Processing is new too, but a little easier for me since I am more familiar with debugging mistakes I made. Solving mistakes with the Teensy is taking a lot longer at the moment because I don't get any feedback which makes it hard to understand what is going wrong.

In this first quartile I saw the importance of technology in product design. Because I graduated as an IT & Media Designer, most of my concepts lean towards quite technical products and solutions. Therefore, using the Teensy for prototypes is important in my process of becoming a product designer. I know it will take time and practice to learn what the possibilities are and to get used to working with the Teensy so I will continue to do this during my (pre)master.

Next steps

If I were to work further on this assignment, I would add extra buttons so that every element of the poster, and not only one circle could be adjusted. Furthermore, I think that an Ultrasonic Sonar Distance Sensor would work well to set the scale of the shapes, instead of the LDR sensor. Finally, I would like to continue working on implementing digital buttons in the Processing canvas as an alternative to the interactivity that is now only possible with the buttons and sensors on the Teensy.