Reflection

Lisanne de Jonge

11/04/2020

How does everything you learned in this course help you become a better designer (in line with your vision and professional identity)?

First of all, during the course I learned how to make a schematic of the circuit, learned how to make the circuit on my breadboard, how to write a good report, how you can calculate the values of your circuit, how you can make a circuit in Falstad and how you can use this program to evaluate your calculated values. During the lab sessions I learned how the equipment of the lab works, like the Digital Storage Oscilloscope, the Digital Multimeter and the Waveform Generator. I learned how you make nice graphs of your values in a Python code. I have learned how you can work with a pot meter and to control the current through the circuit with the pot meter. I learned how you can work with a FET and transistor in your circuit and how you can work with them.

How did I leanr these things? By doing, during the labsesions we made the circuits and by doing online working on Falstad I learned how the side works. From the video lectures I learned some more about how to calculate the values of your circuit. For future projects I will do more to learn, I prefer that learning method more and you immediately understand how it works after a couple of times trying it and you will remember it longer.

In the future, I as a designer want to make working prototypes. Which means prototypes that have electronica in them that works, that shows the outside world what it does. I want to make working prototypes, so I can test my prototypes during projects better with my participants, to give my future potential buyer a better idea of how it works and to show my product better to the assessors. With my new knowledge about breadboards and electronica I can make prototypes existing of a breadboard, led, NTC, FET, resistor, pot meter, transistor and a heating element. This broadens my ideas for prototypes that I know I can really make. All this knowledge can help me in further projects, like 2 and 3, but also in future jobs when I'm working with electronics or when a colleague is.

In a future electronics course or in a workshop, I would like to learn more about the programming part, the Arduino, to control your prototype. I want to learn this, because I think this will help me in broaden my knowledge to make prototypes. This knowledge can help me in making my prototypes better, better working for the assess moment. A second thing I want to learn more is how to debug your circuit. I find it difficult to recognize the mistake I made. I can recognize a lose wire in the circuit, but a real mistake of a to low voltage source or a sensor and resistor that had to be switched, do I find more difficult. I want to learn this, so I can make my circuit with more speed. This can help me in making a prototype faster, which will give me more time to test my prototype with my participants before the assessment moment.

To conclude, the new knowledge can help me fulfill my vision of making robots that can help people. Robots that can help people in there homes, so people can spend more time to the environment. And also making robots that can save the planet, stop the global warming. This will help the planet. The course helped me with reaching my goal for the expertise area Technology & realization. I can now make a working prototype with sensors. I wanted to learn this, so I have more knowledge in this area. Overall I learned a lot about electronics for myself as a designer to use in the future.