Line Tracing Truck: Week II

by

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The main goals of this week were to cut the parts of the first prototype and start elaborating the electronic circuit.

We met on the 4th of April at 10:00 in the Fablab of the university. Thanks to the previous work of Lauri, that had designed the different parts of the truck into Inkscape software, we could start cutting these parts.

Firstly, we asked for help and instructions in the Fablab. We didn't know how to use the laser cutter, so we needed explanations on its operation. After this, we cut our pieces in materials that were provided in the Fablab (bottom, sides, front and top of the truck) with this machine. We had to modify the Inkscape files to use the laser cutter.

After this cutting session, we met again on the 6th of April at the university. We tried to reproduce the electronic circuit that I was trying to build since a day. Unfortunately, we didn't succeed in making the DC and servo motors working for real.

We then went to attend the tutoring session of Sohail, but he wasn't there. So, we had to wait for another tutoring session of Georgi. Aleksi showed him an idea of an electronic circuit that he just had. Georgi gave us some advice and said that Aleksi's idea would work for the real components. After this, we went to take our additional components for the project.

Aleksi's report:

At the start of the second week, we visited Fablab as a group. During this time, I learned how to import 3D models from fusion 360 to Inkscape and from there to the laser cutter to be cut into a real-life model. After our second meeting and the tutoring session I got the electronic component pack for myself to test out the code I created the week earlier. After getting to know how the components work, I was able to create a working circuit for both the ambient light sensor and the DC motor.

Altogether I spent approximately 6-7 hours on this project on my own.

This week I learned how to properly work in Fablab, use online 3D models to create real life models and how to work with real components.

Lauri's report:

Tanguy's report:

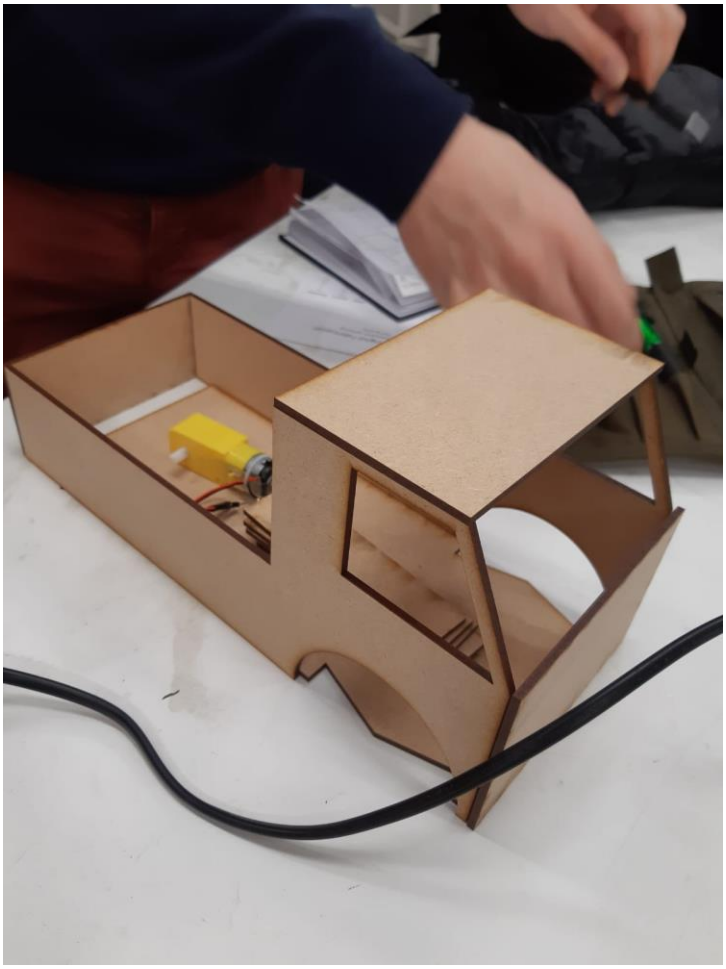
During this week, I learned how to use Inkscape to design parts that will be cut with a laser. I also got familiar with the main security rules of the Fablab and how to use the laser cutter correctly.

I helped with the cutting by manipulating the raw material and the machine and I also verified the previous weekly reports.

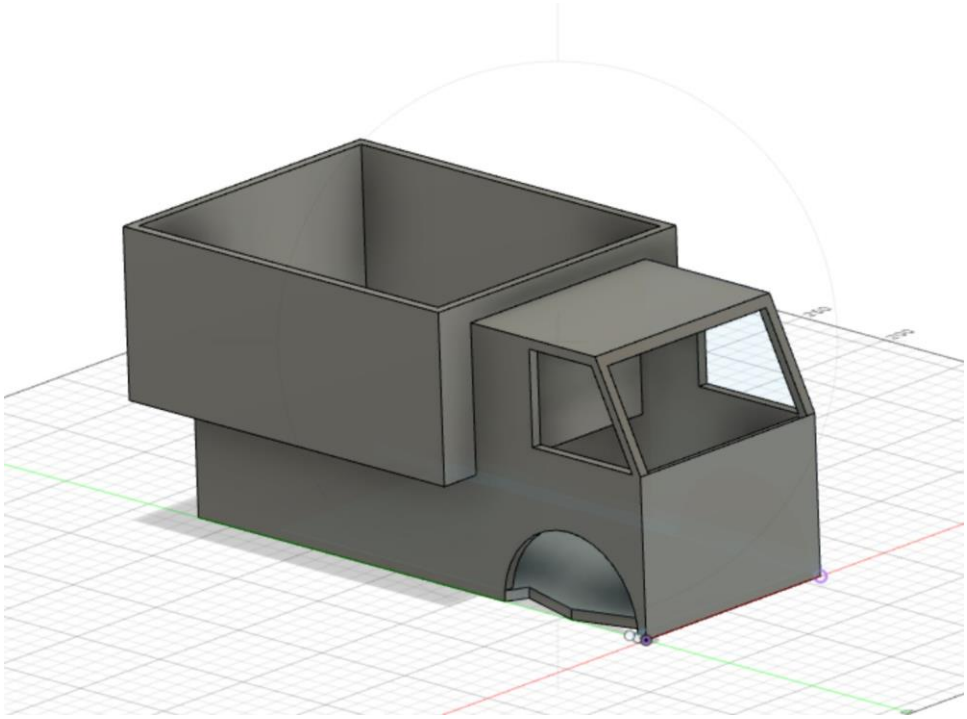
For two days, I had the electronic components for myself, and I tried to build an electronic circuit that would make the truck drive. Unfortunately, my idea wasn't good because the circuit wasn't working at all. Lauri and Aleksi tried to help me, but we couldn't find a good solution.

Without any blog available, I uploaded our first reports on our repository on GitHub.

This week I spent around 4 hours on my own working on this project.



Parts of the unmounted prototype, cut with the laser



The truck prototype, designed with Fusion360 by Lauri