

Line Tracing Truck: Summary report

by

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Wrapping up the project:

We are proud to say that our truck corresponds to what we wanted to make at first: a line following truck, integrally made of wood and MDF.

Since the beginning of April, we worked on that project and had to learn new skills to achieve it. For example, we needed to learn how to use Inkscape, Fusion 360, Arduino IDE and GitHub. We also needed to use the laser cutter of the FabLab and so we needed to learn how to control it. This project was the perfect opportunity to learn new things.

We designed the truck in Fusion 360, designed the separated parts in Inkscape, cut these at the FabLab, learned to use the actioners we needed, coded the software for them and assembled everything in one final product. The truck can drive forward, sense the ambient luminosity and control the frontal LED's.

We firstly wanted to use pre-made wheels, but we finally made them on our own at the FabLab (designed by Lauri).

Sustainability aspects:

The final truck corresponds to what we wanted to produce: a product made of wood and MDF (re-using from the FabLab) to reach the sustainability objectives. The wheels were not ordered and were designed by Lauri and are also made of wood.

We re-used the materials of the prototype to make our final truck, so that we didn't waste any material.

Lessons learned:

We probably underestimated the amount of work we needed to bring for this project, since we are a bit short to meet the final deadline. We should have kept our rhythm of work of the first weeks. We could not make the ultrasonic sensor and the piezo transducer work properly.

Feedback:

This project definitely helped us to learn new things and new skills. We also had the opportunity to make a product of our choice and to use our newly acquired knowledge to perform all the tasks needed.

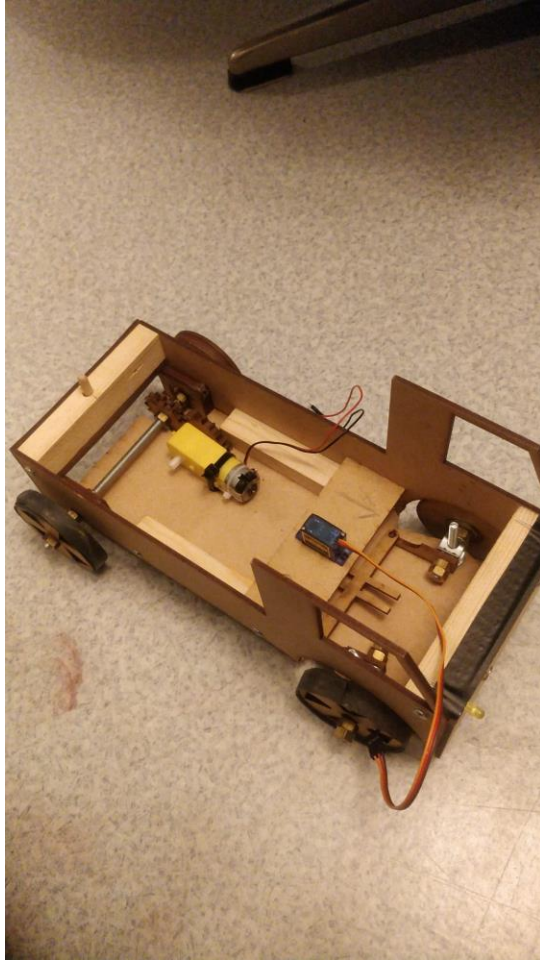
This brought a concrete use of the technologies we can find in FabLabs and what we can do with electronics and informatics.



Final truck in assembling, designed by Lauri



Final truck, assembled by Lauri



Final truck, interior view without electronic components