LINE FOLLOWING DEVICE

Liceul Teoretic de Informatica
“Grigore Moisil”

RoboSTEM Lesson Report

Co-funded by the Erasmus+ Programme of the European Union

Project No. 2019-1-RO01-KA202-063965
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Student Profile

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Student Profile

"Provide some info about yourself"

Example:

Hello! My name is Sorin-Emanuel Dima!

- Age: 17
- Country of Origin: Romania
- School Grade: 11th
- Favourite School Subject: Informatics
- Hobbies: Robotics, F1

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Topic of the Lesson

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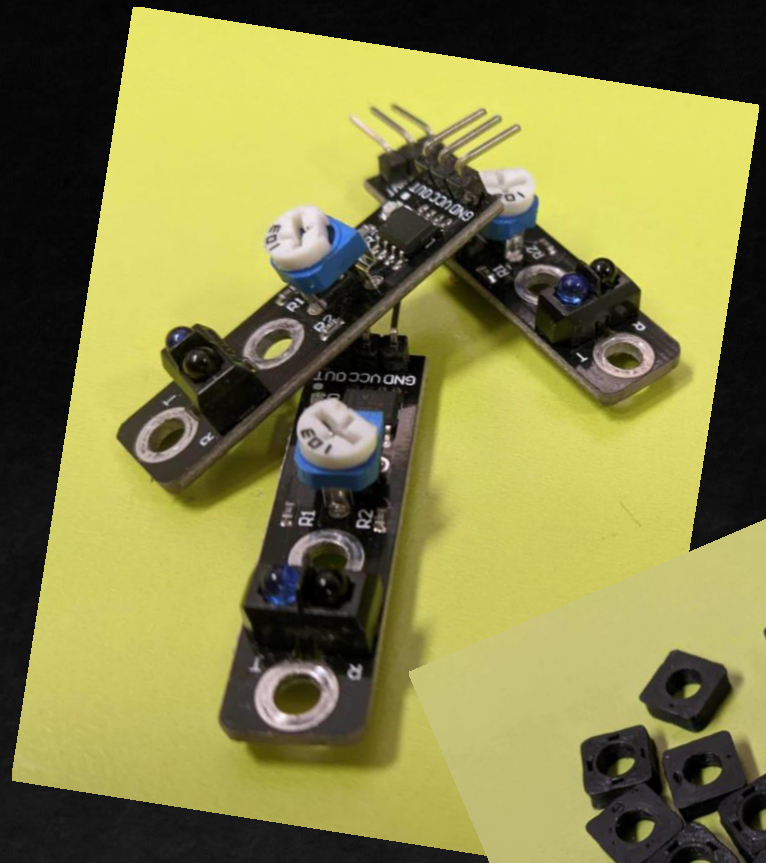
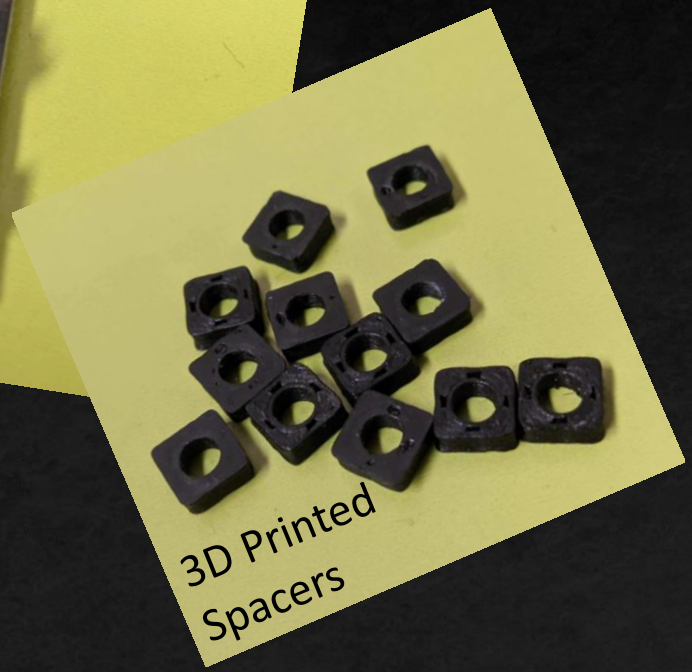
Topic of the Lesson

With this robot you can learn how to create an autonomous vehicle.

Skills developed:

- **Light programming**
- **Mechanics**
- **3D modeling and printing**
- **Design**
- **Problem solving and troubleshooting**





3D Printed Spacers

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Practical Implementation

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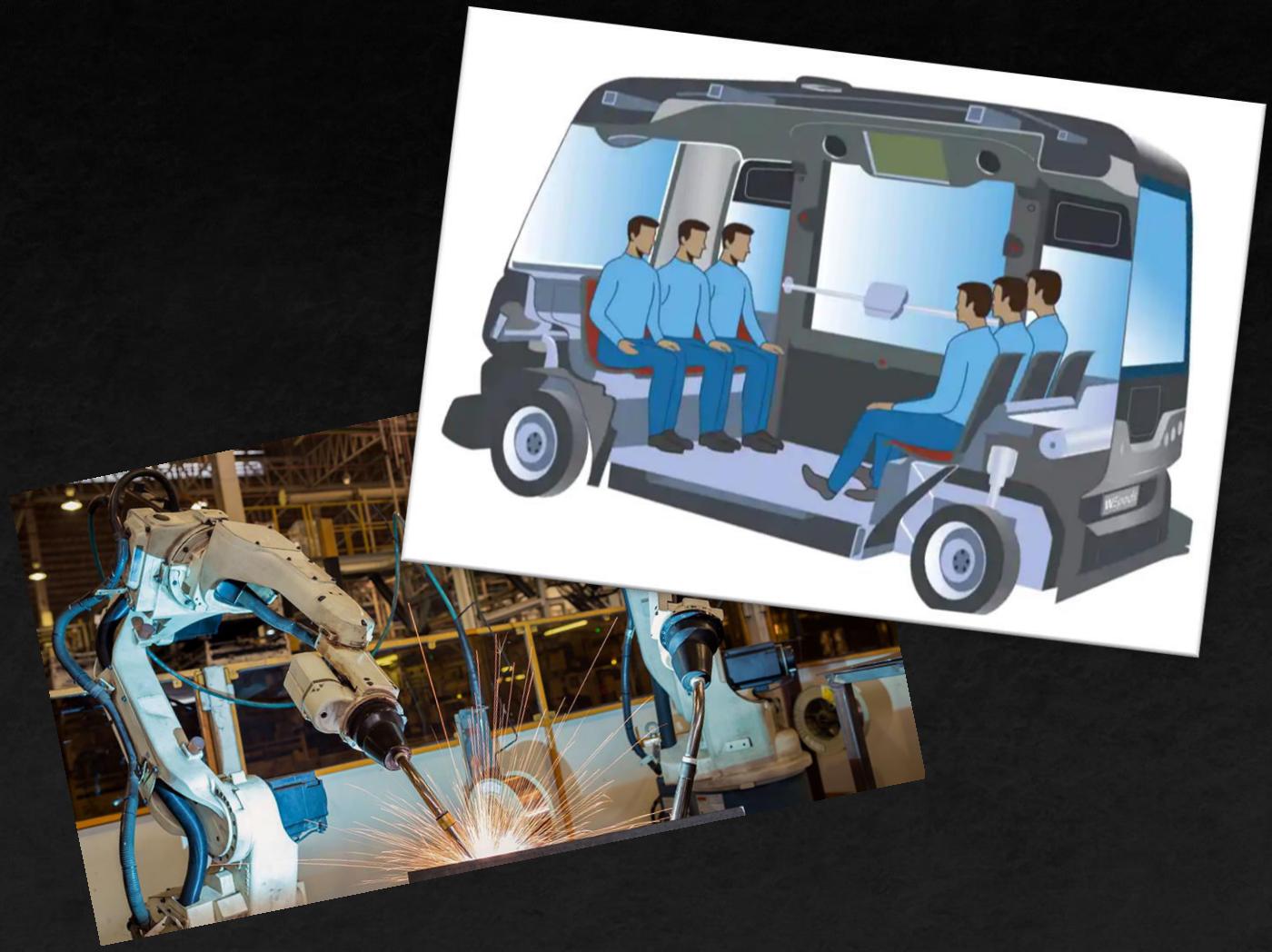
Practical Implementation

The knowledge you gather while building and programming this robot is a small basis for bigger uses, like autonomous school buses, autonomous robots in factories, home automation etc.



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A Different Way to Learn

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A Different Way to Learn

The practical approach to learning how to design and print 3D parts, or to program an autonomous robot, helps a lot with learning the basics of thinking and building an autonomous vehicle, even if the skills required for the robot are way fewer then the ones required for a car or bus.

This approach is better then the theoretical one because doing actual practical work instead of simply being told how to do it is better for learning these types of skills.

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Eager to Get Back?

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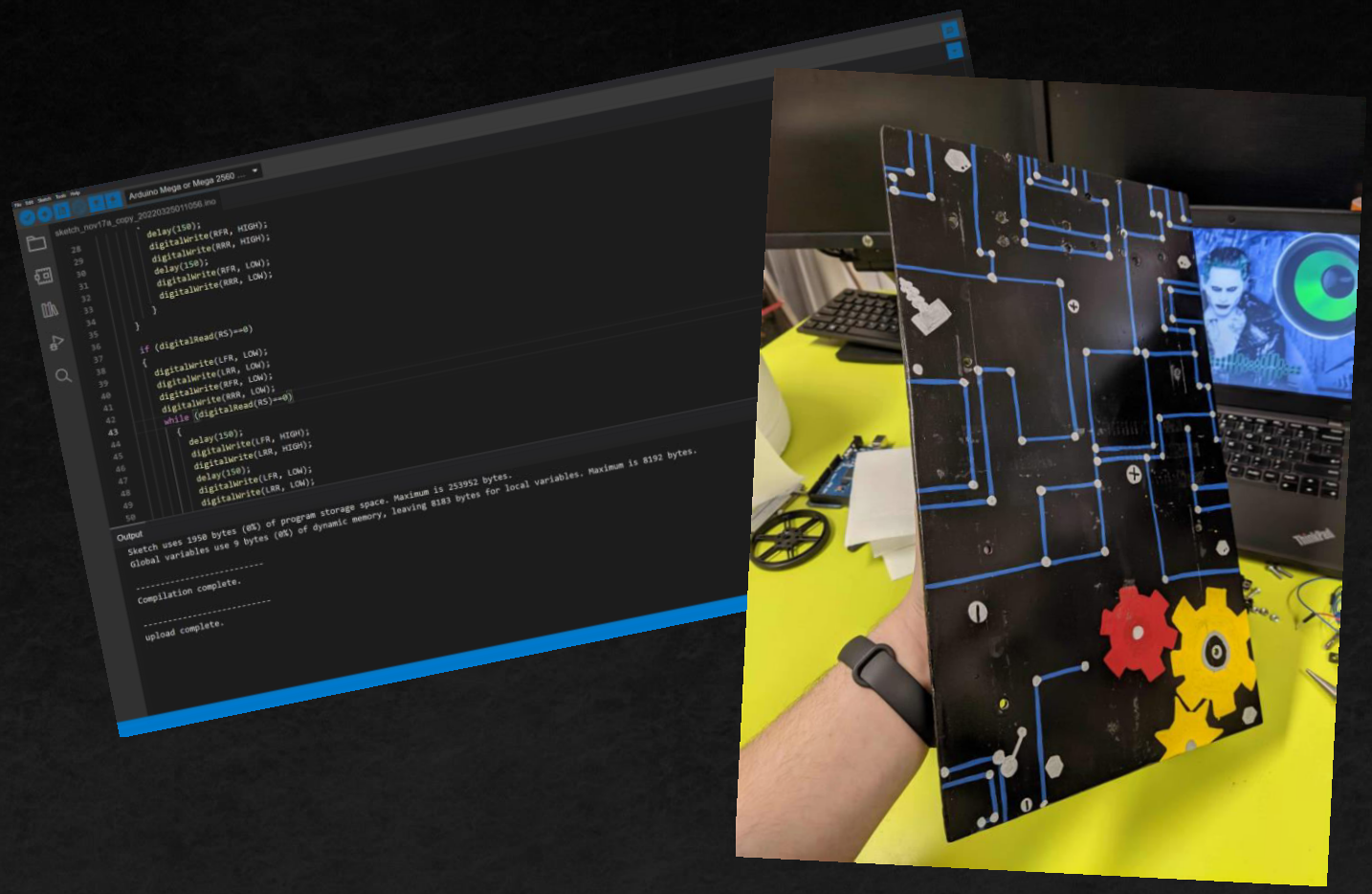
Eager to Get Back?



I saw every session as a new opportunity to learn something new, like coding in Arduino IDE, how to make 3D models for the robots and 3D print said parts, and how to make a nice looking design for the chassis of an otherwise boring robot. I also formed strong friendships with the team.

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Problem Solving

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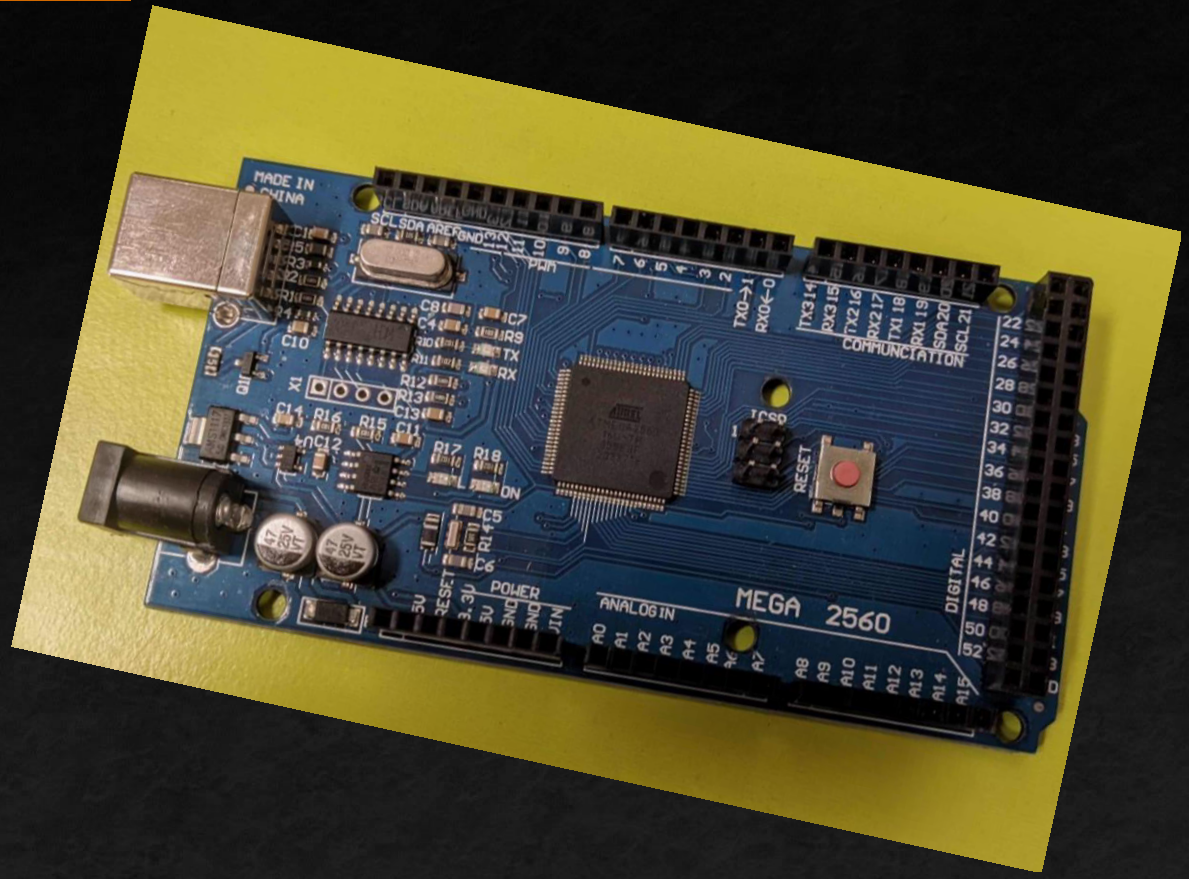
Problem Solving

During the lab work, many issues appeared, like broken parts, badly written code, badly designed parts etc. To tackle, for example, the badly written code, I tried to find examples of similar code, of similar uses, of similar issues, and managed to bring the robot in a working state. It was not easy, but also not very hard, as testing the code was quite easy with the robot at hand.



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My Way of Learning

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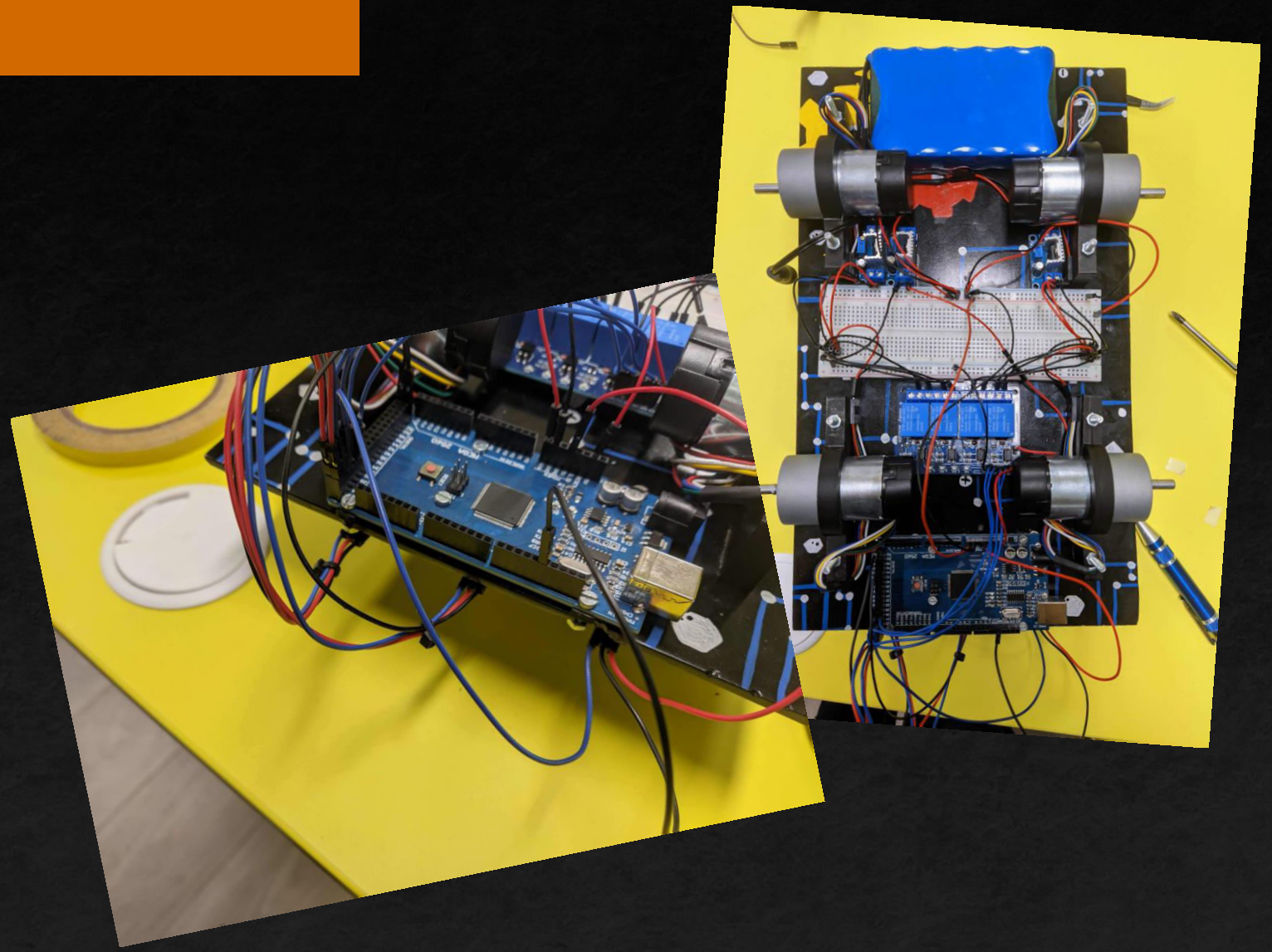
My Way of Learning

I learn best in class through the exercises done by the teachers at the whiteboard and then through the questions asked and the explained answers. I rarely learn at home by reading the lesson a few times and then writing on the notebook and making new problems to develop new skills for this type of exercises.



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Building My Future

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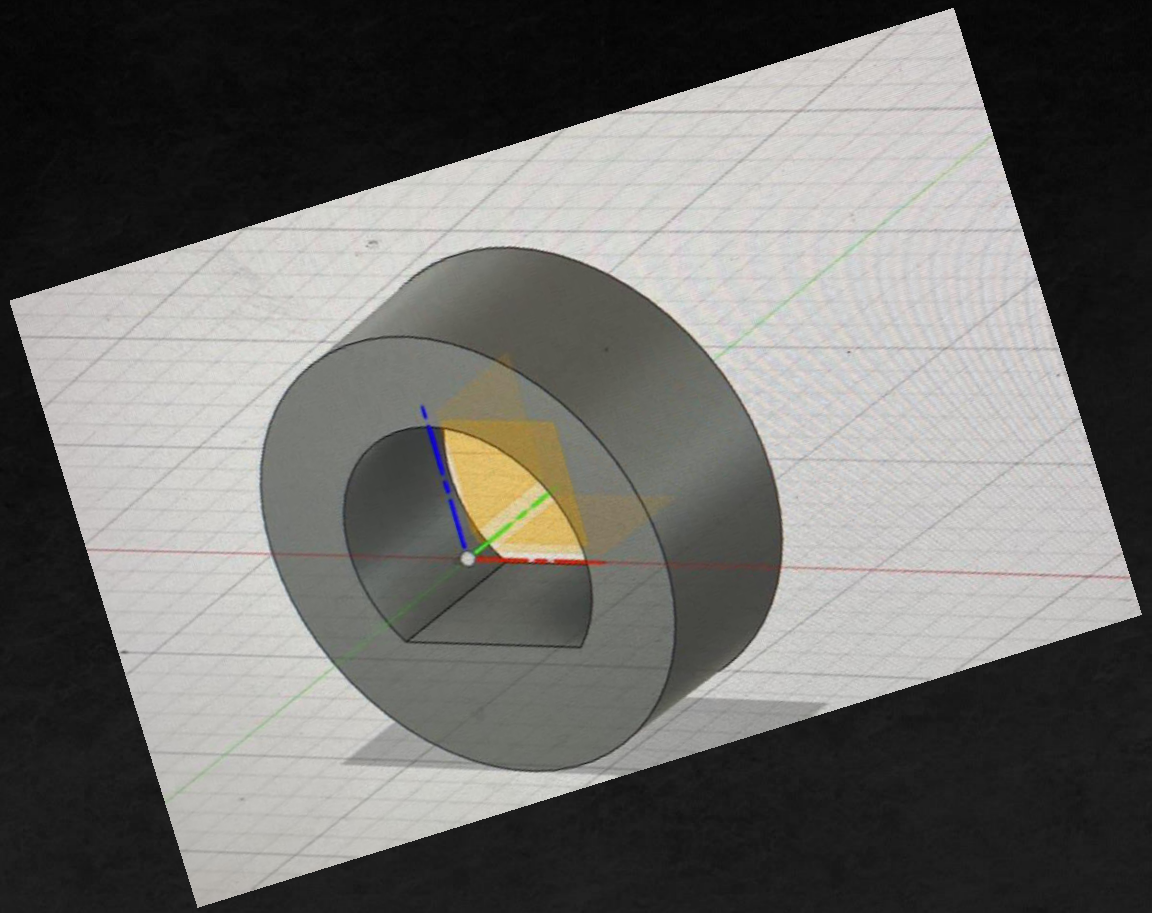
Building My Future



This project helped me to learn how to create a basic robot from scratch, how to program this device and future ones using Arduino, how to make 3D objects in Fusion360 and how to make a nice looking design, so the end result looks nice and profesional.

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