

# **Weekly Report N°7 for**

*School year 2023-2024*

**RubbleScout,**  
*"Navigating Chaos, Saving Lives"*

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## Objectives:

- 3D print and assemble the various components for the LiDAR module.
- Prepare for the next steps: wiring, programming, and testing the LiDAR system.

## Activities Undertaken:

### 1. 3D Printing of LiDAR Components:

- Successfully completed the 3D printing of all necessary parts for the LiDAR module.
- Focused on precision and quality in printing to ensure smooth assembly and functionality.

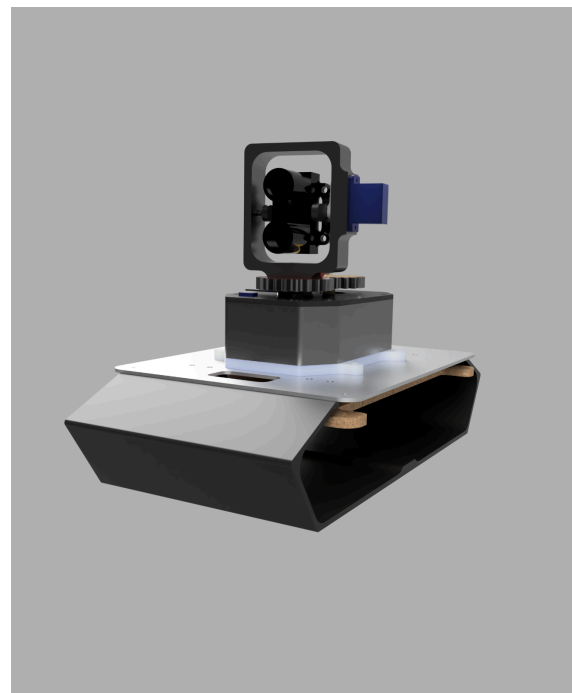
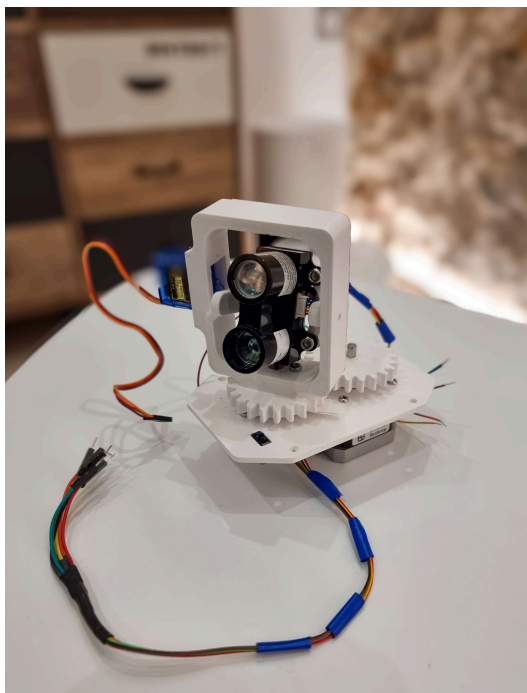
### 2. Assembly of the LiDAR Module:

- Meticulously assembled the printed parts to form the complete LiDAR module.
- Ensured that all components fit together seamlessly and that the overall structure is sturdy and reliable.

## Results and Observations:

- **LiDAR Module Assembly:** The assembly process went smoothly, with all 3D printed components fitting together as designed. The completed module is now ready for the next phase of integration.

- **Physical Integrity:** The assembled LiDAR module appears robust and is expected to perform well under test conditions.



**Next Steps:**

- **Wiring and Electronics:** The immediate next step is to wire the LiDAR module and integrate it with the necessary electronics.
- **Programming the LiDAR:** Develop and upload the code required for the LiDAR to function and communicate with the robot's central processing unit.
- **Testing:** Once wired and programmed, comprehensive testing of the LiDAR module will be conducted to ensure it operates as intended and accurately performs environmental scanning.

**Reflections:**

This session marked a significant milestone in the RubbleScout project, bringing the LiDAR module from design to physical reality. The success of this phase bolsters our confidence in the project's progress. The upcoming tasks of wiring, programming, and testing are crucial and will require meticulous attention to detail to ensure the LiDAR module's functionality and reliability.