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**Middle East Technical University**

**Electrical - Electronics Engineering Department**

***EE493 - Engineering Design I***

***Weekly Report***

**Group Name:** λambda

**Date:** 12.12.2021 *(Week 8&9)*

**Design Coordinator:**

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1. **Done During Week 8**
2. This week our team focused mainly on Detection Subsystem Research. A research note was created during the research to see the systems regularly and effectively.

* During the research, the specific systems using different technologies, their advantages, disadvantages, and features were examined.
* Distance measurement systems and techniques were evaluated and processed, such as ultrasonic, IR, LIDAR, and ToF.

Since the team tries to compare these technologies, plenty of tables are shown in the research notes. Yet, a much more general table has been prepared and placed in the second page of the report. Also, a range vs. accuracy comparison graph is shown on the same page.

1. **Planned for Week 9**
2. Among the researched technologies, algorithms, and techniques, the most suitable one will be determined, and concrete studies will be started.
3. In this sense, in the system to be studied, the budget and datasheet research of the necessary equipment will be made, and the orders for the products will be given.
4. We will determine the related filtering methods and basic structures in the algorithm.