

Weekly Progress Report

COMPANY NAME: TechBatch

TEAM MEMBERS: Eda ÖZKAYNAR, Hasan Said ÜNAL, Mustafa ÇELİK, Mustafa Kemal ÖZDEMİR, Tuana MERDOL

What were your plans and goals for this week? What was the individual task of each member of your team?

This week, we decided to finally buy our main components to demonstrate the basic operations of our system before completing our test procedure document. Also, we had planned to decide on our test procedure, test parameters, measurement devices, and ground truths before starting real-life experiments. We decided firstly, to try infrared communication between units and the range of our communication, secondly, since we decided to base our algorithm on moving mobile units to RFID tags, we decided to try those tags as well. Thus, on Monday all group members planned to go to buy components together. There were no individual tasks, however, all group members were expected to search for data sheets and example applications in order to choose components.

Have you met your goals?

We met our goals as we bought RFID tags, and microcontrollers that we are planning to use (ESP 32), however, we could not find the transceiver modules that we needed and we bought basic components just for experimenting. Finally, we order motors, motor drivers, and other transmitter receiver modules which will be sufficient for our needs online.

What were the challenges that you encountered?

We cannot find transceiver modules that can ease communication procedures in Turkish markets. Thus, we decided to use separate transmitter, and receiver modules in each device for now and order the actual modules we need online.

What are the questions (if any) that you would like to discuss this week?

We do not have any questions right now.

What are your plans and goals for next week? Assign tasks to each individual member.

Next week, hopefully we will have our components and we can start testing them in the real environment. Our main objective for the following week will be as follows:

1. Decide on our test parameters.
2. Decide on test related concepts such as ground truth, measurement devices etc.
3. Implementing our main two task for our demo with our components and testing them:
 - Infrared communication between base units and mobile units. Localization of the mobile units.
 - Guiding mobile units to move on a path between two points with commands from the base unit.
4. Writing a test document.
5. All members are going to meet daily in the laboratory to implement and try the system.
6. Lab experiments will be done together by all members as these are the first real life implementations.

7. The test procedure document is divided into parts and assigned to each member. We determined 3 test procedures and assigned writing details of them to each group member.
 - Eda, Mustafa and Hasan are going to write test procedures.
 - Tuana and Mustafa Kemal are going to write the other parts.