03.03.2024

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 planned to buy new components, such as motors and Li-Ion batteries.

Have you met your goals?

Yes, we have bought new components that we need.

What were the challenges that you encountered?

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.

- Eda ÖZKAYNAR will be responsible for the search and rescue algorithm and MU reconstruction with new components.
- Hasan Said ÜNAL will be responsible for optimizing the movement algorithm to decrease the deflections that the MU suffers while it is moving and tries to find other options if they are needed.
- Mustafa ÇELİK will be responsible for finding new ways to decrease IR transmitter range and coding messages that are used for communication.
- Mustafa Kemal ÖZDEMİR will be responsible for coding the communication architecture and integrating it with the movement code.
- Tuana MERDOL will be responsible for integrating the new battery into the mobile unit and doing tests with it to observe the effect of the new battery to path tracking.

Components	**Number**	**Price of one / Total price**
DC motors.	6-12	128/768-1536
motor drivers	3-6	61/183-366
wheel	6-12	60/360-720
MPU6050	3	72/216
ESP32-WROOM	5	220/1100
MU chassis	3	
IR transmitter module	4-6	19.4/77.6-116.4
IR receiver	4-6	3.4/13.6-20.4
3.7 V 2600mAh Li-ion	9	127.5/1143
Li-Ion battery charger	3	16/48
Min-Max Total cost		**3909-5266**

Future Works:

- The mobile unit will be reconstructed using new components (Li-Ion battery and motors).
- Search and rescue algorithm.
- The main code architecture will be created.
- Physical solutions for the IR range will be tried.
- The chassis of mobile units will be designed and printed from a 3D printer.
- Grid will be designed.