

Week-6

Topics:

- To create Conceptual design
- To estimate power consumption of the system
- To Start PCB design
- To de research about PIO .
- To make RPI blink its IP address

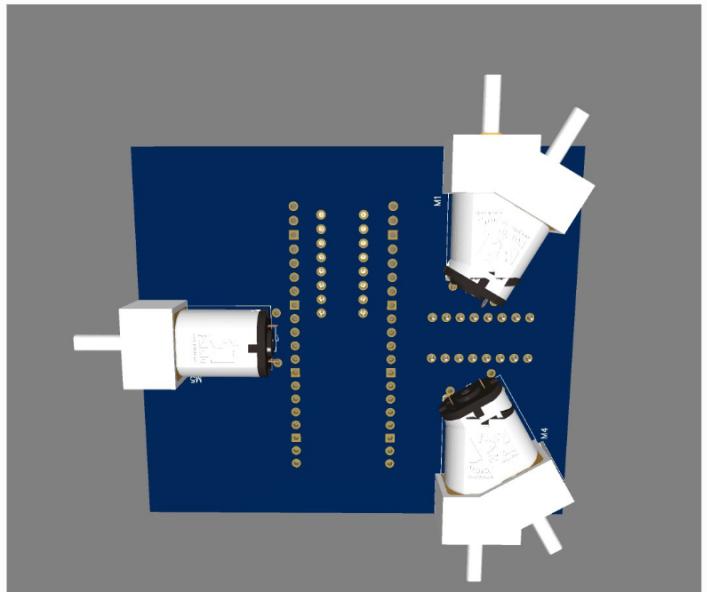
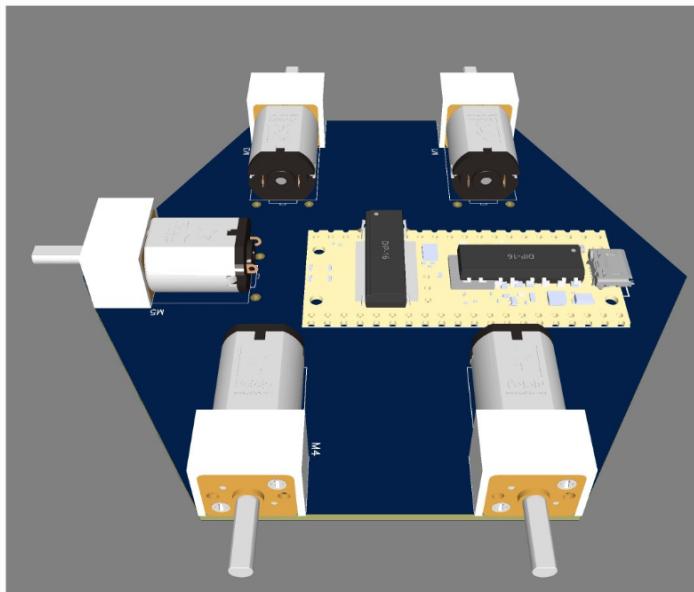
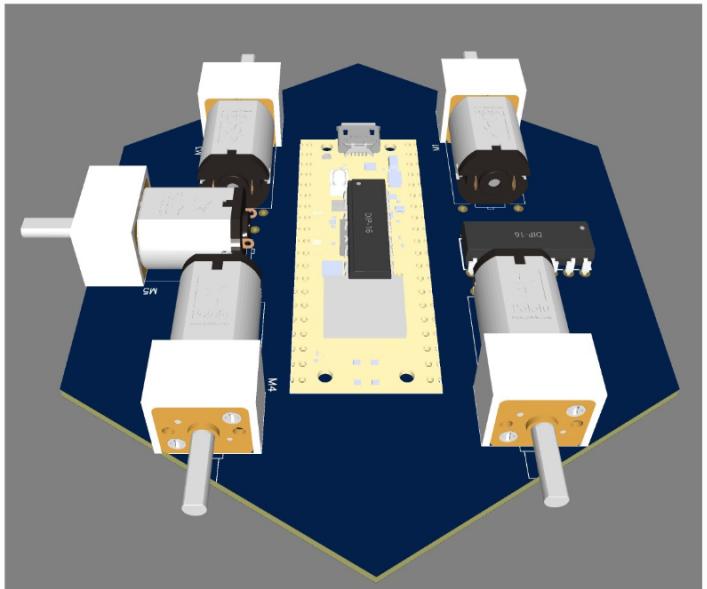
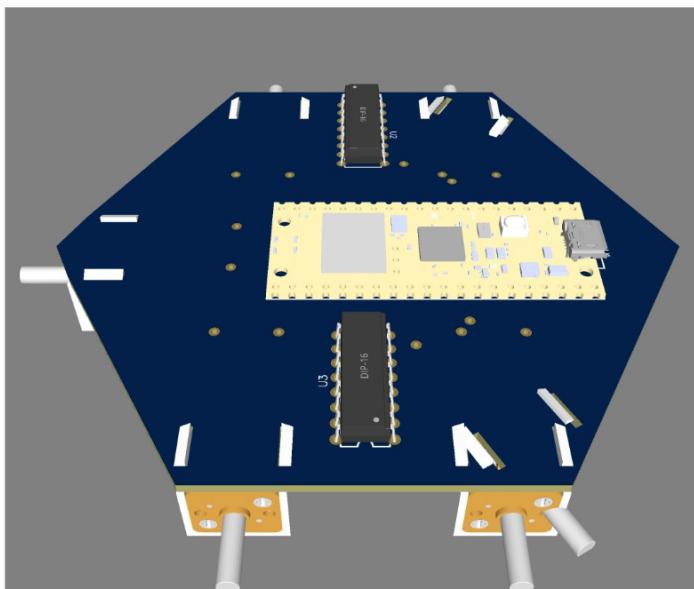
Participants:

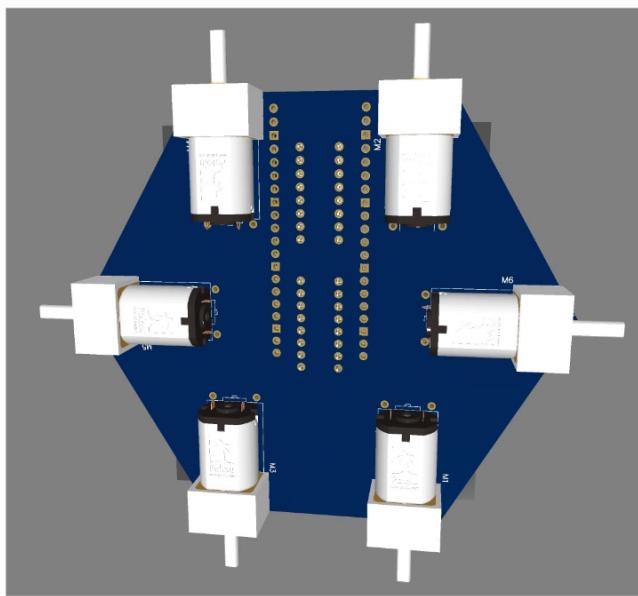
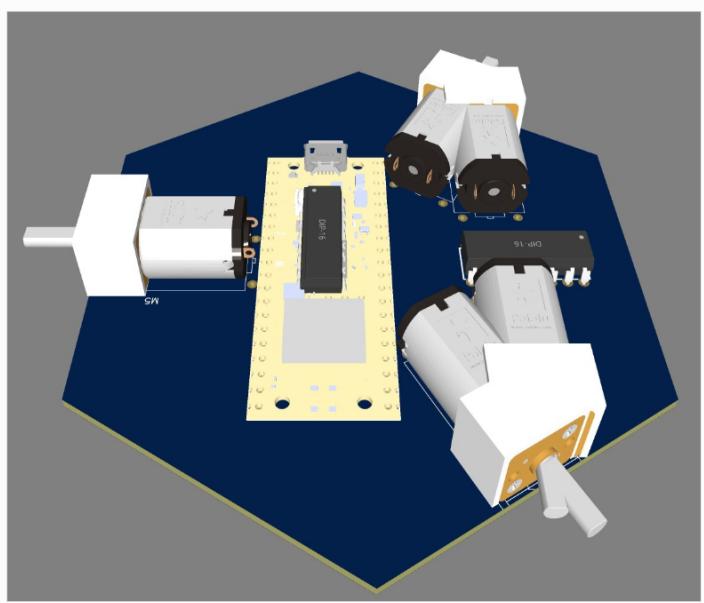
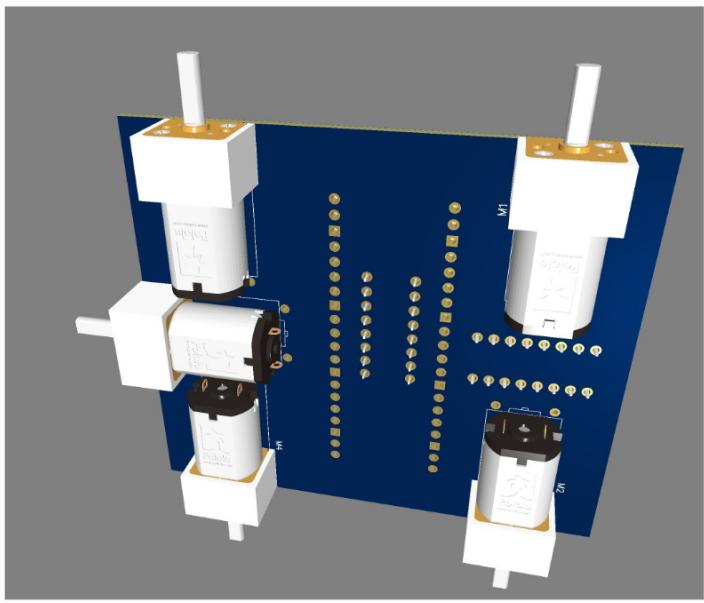
- All members of the group participate to meeting.

Device	Amperage	Max Power Consumption
Raspberry Pi 4	1.52	7.6 W
Raspberry Pi Pico	-	1.5 watts
HC-SR04 Ultrasonic Sensor	20 mA	0.1 watts
Raspberry Pi Camera Module 3	300mA	1.5 watts
DC Motors (Pololu)	-	1.6 W x n = 4
Total Power Consumption		$\approx 16 \text{ W}$

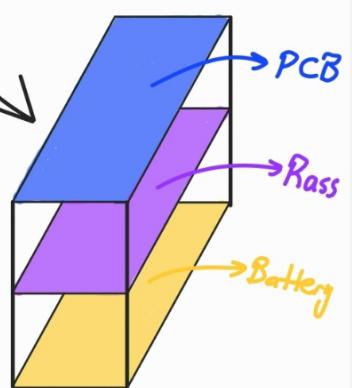
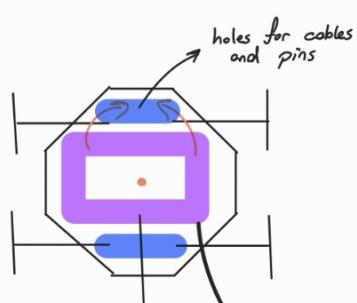
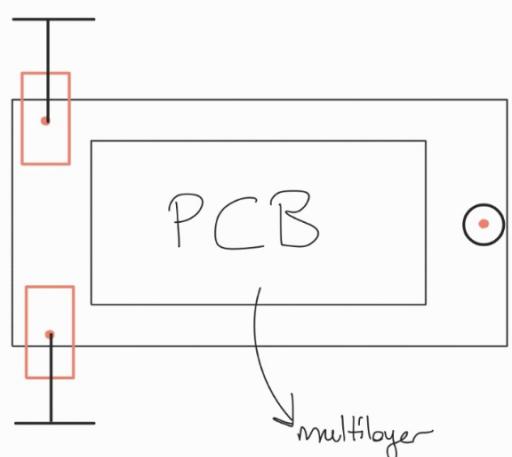
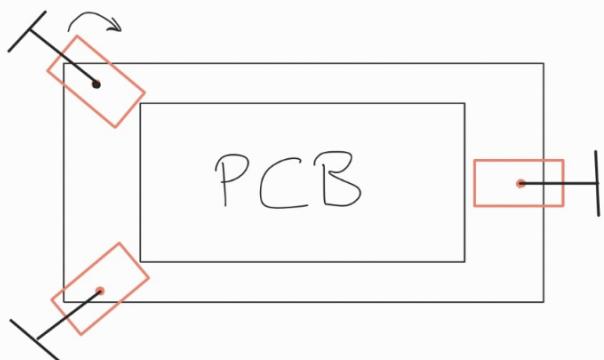
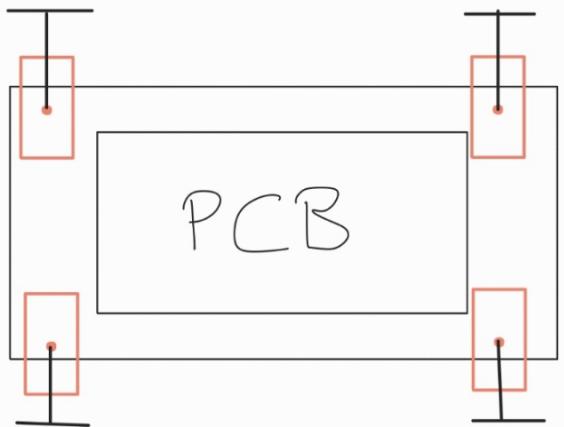
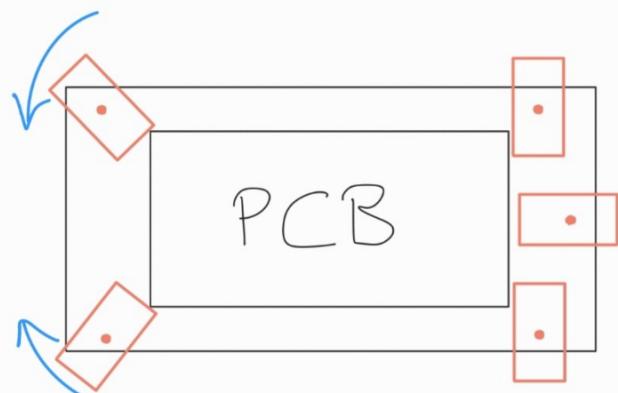
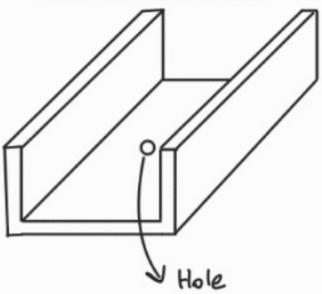
Power Consumption Estimation:

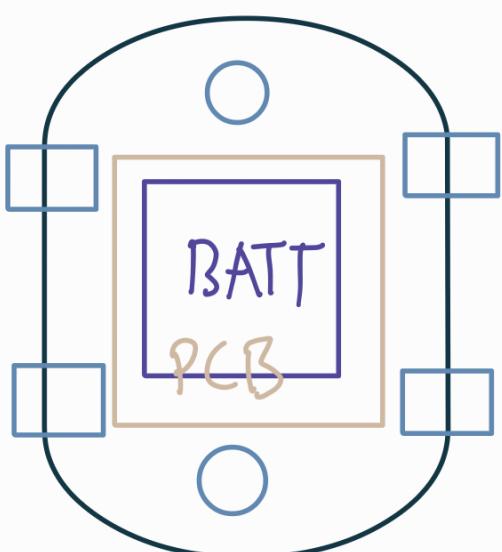
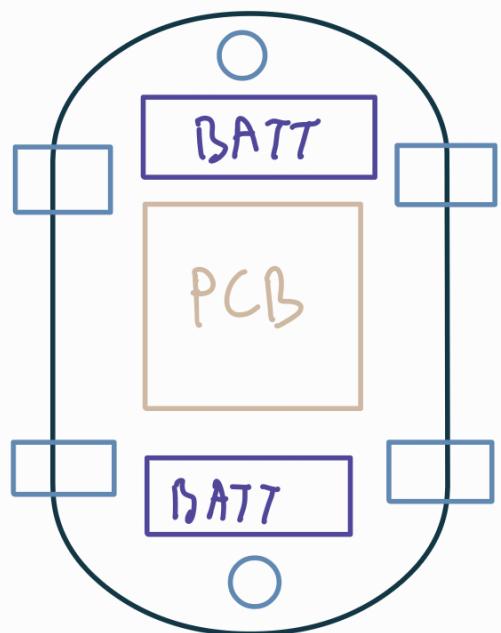
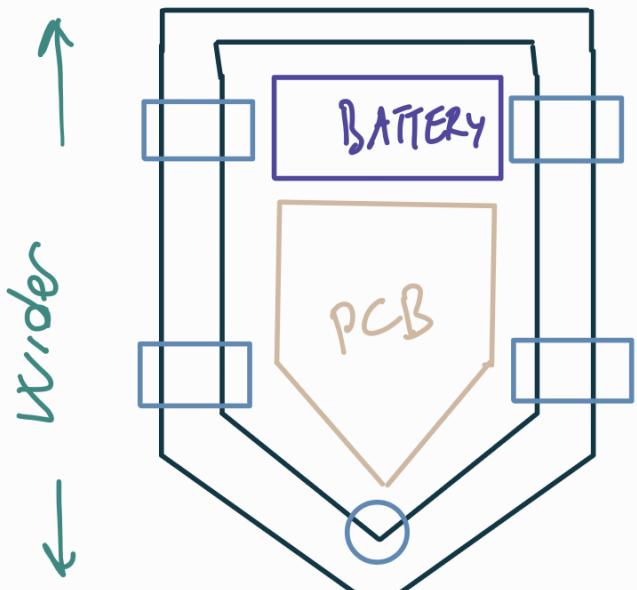
Conceptual Design:





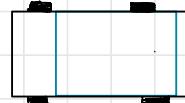
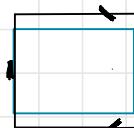
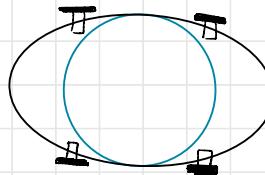
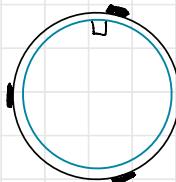
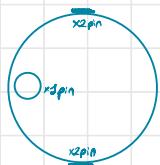
Motor Holder





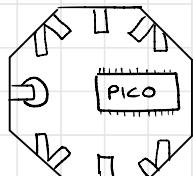
Multilayer / Smaller
height ↑

Ne kador ekmek o kador köfte

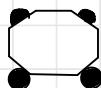


→ We'll supply pins but don't care about place. If anyone wants to change wheel configuration, he or she can increase the footprint.

2-wheel



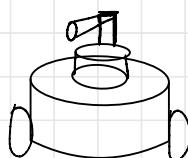
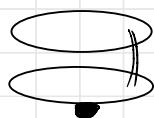
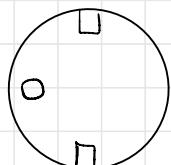
4-wheel



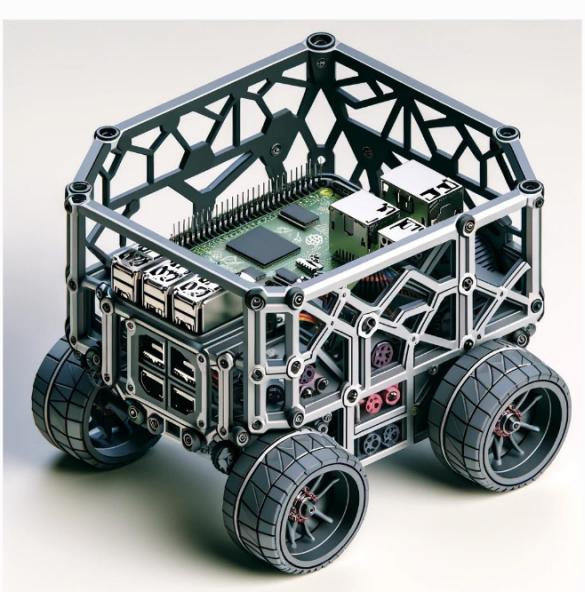
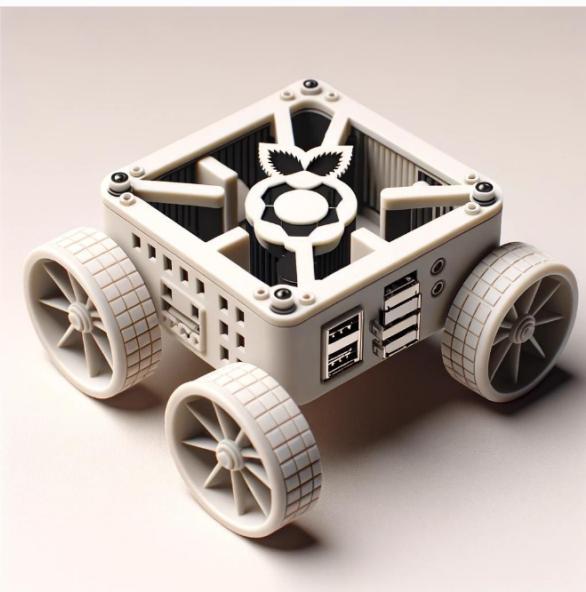
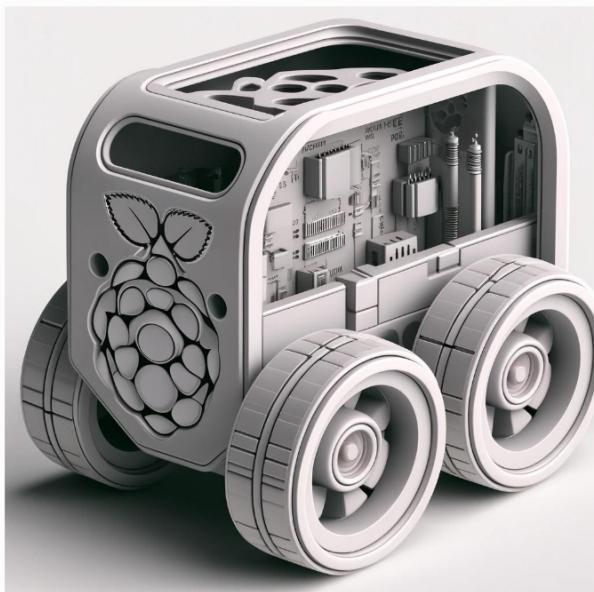
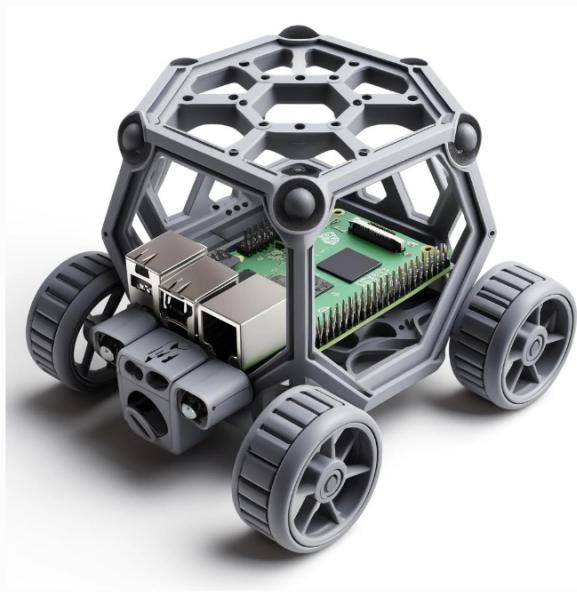
3-wheel

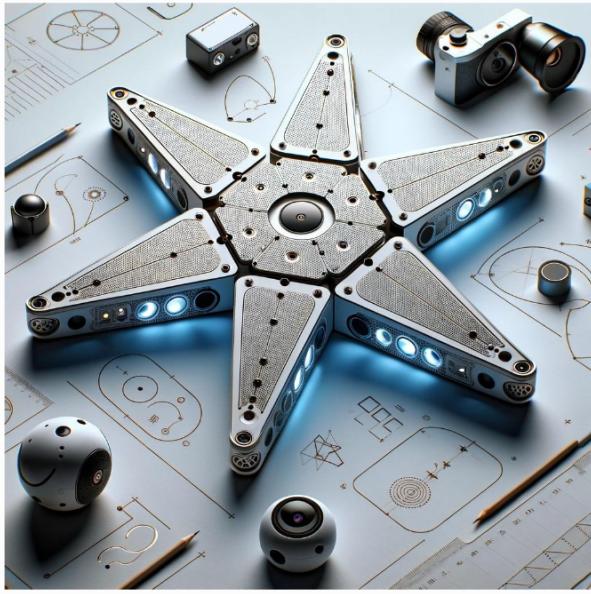


→ provide straight portion both for push game and trailer, charging purposes



AI Designs:





The Aim of the Following Weeks:

- Finalize the Conceptual design and prepare morphological chart.
- Start implementing control algorithms for position control.
- Start PCB design.
- Start configuring the communication structure and ROS environment.