

Team UwU hardware design

Email: teamuwurobotics@gmail.com

Github: <https://github.com/Team-UwU-Robotics/Team-UwU>

Information about the robot

All of the parts are 3D printed to ensure that it is light and durable.

Omnidirectional robot - Robot travels in any angle

Design Considerations

The robot has to be lightweight and must be able to sustain a lot of crashes.

The electrical parts must not be in conflict with any of the robot parts - hence the usage of Fusion 360 to allow us to view the robot virtually before the parts are bought

The camera must be able to see the goals from anywhere on the field



Figure 1: Front view of fully assembled robot

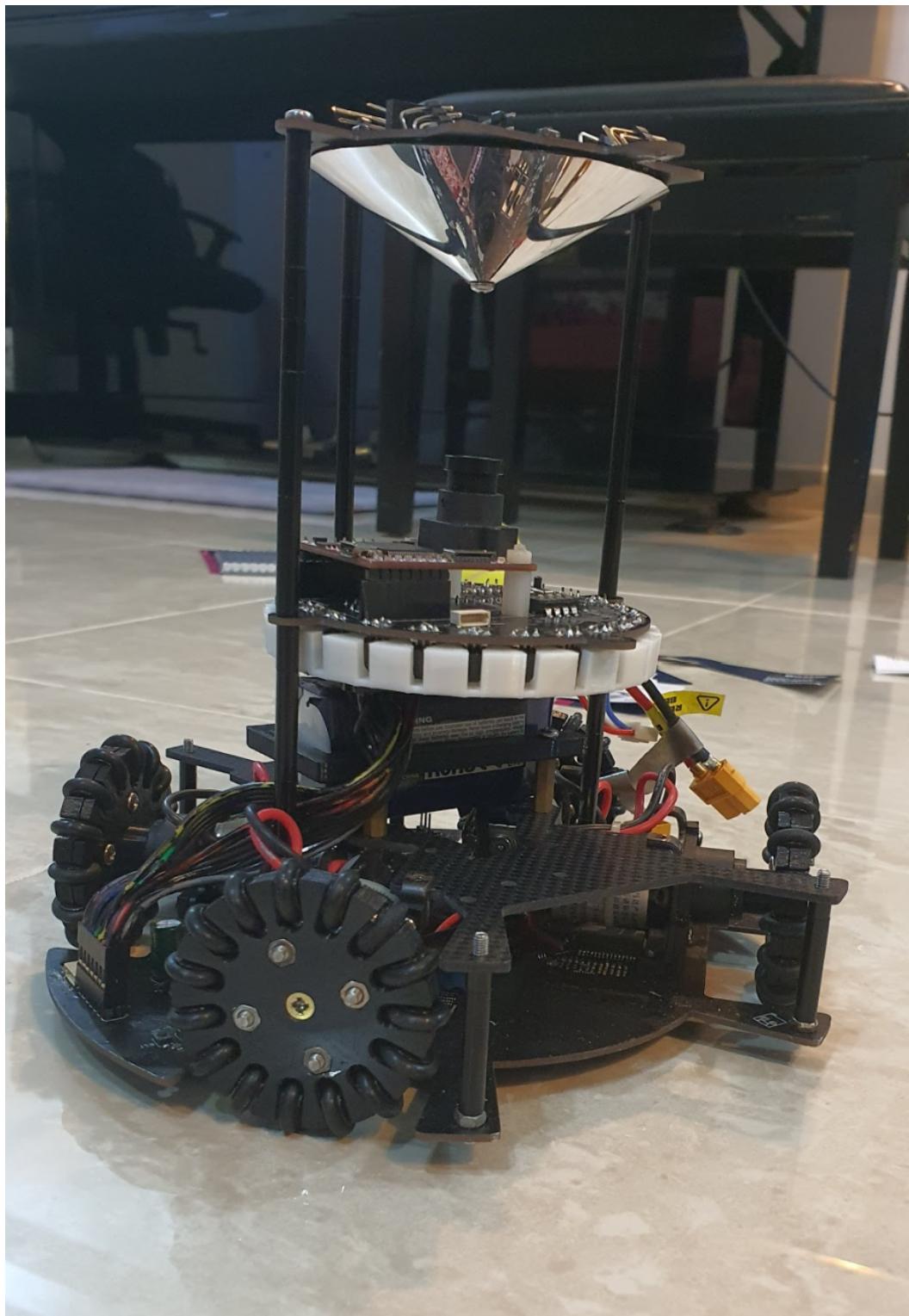


Figure 2: Front-right view of fully assembled robot

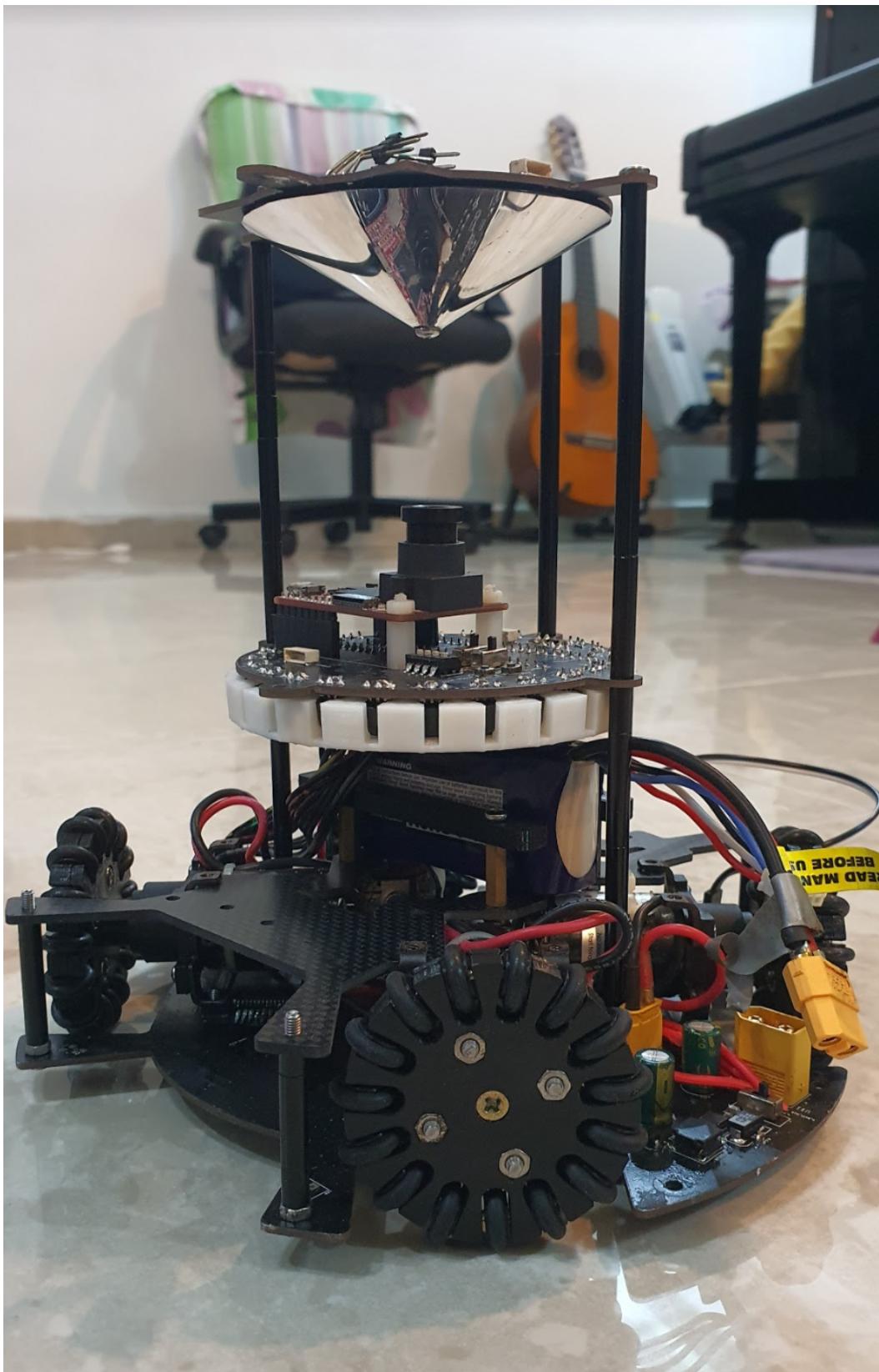


Figure 3: Front-left view of fully assembled robot

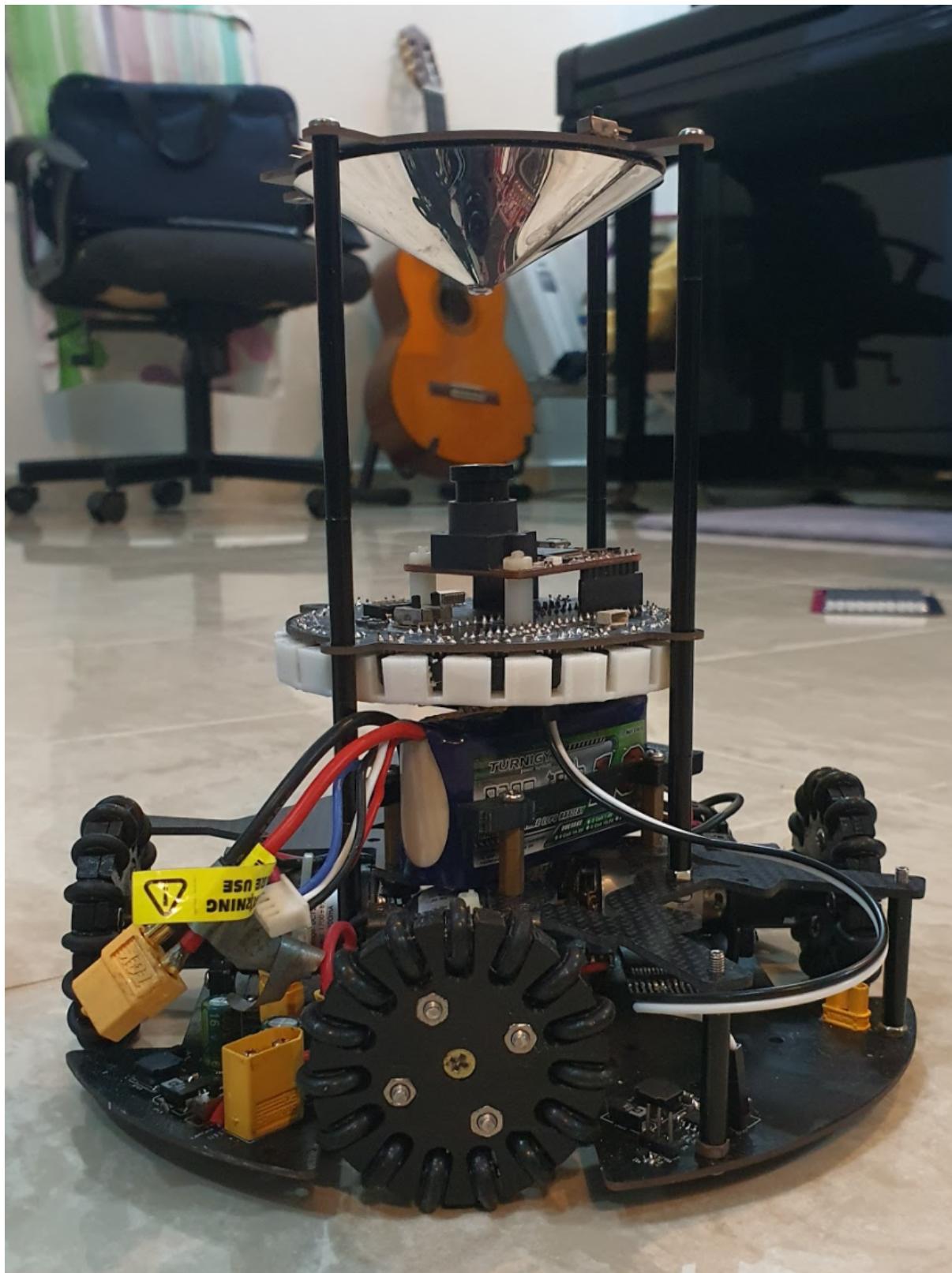


Figure 4: Back-left view of fully assembled robot



Figure 5: Diagonally-top view of 3D model

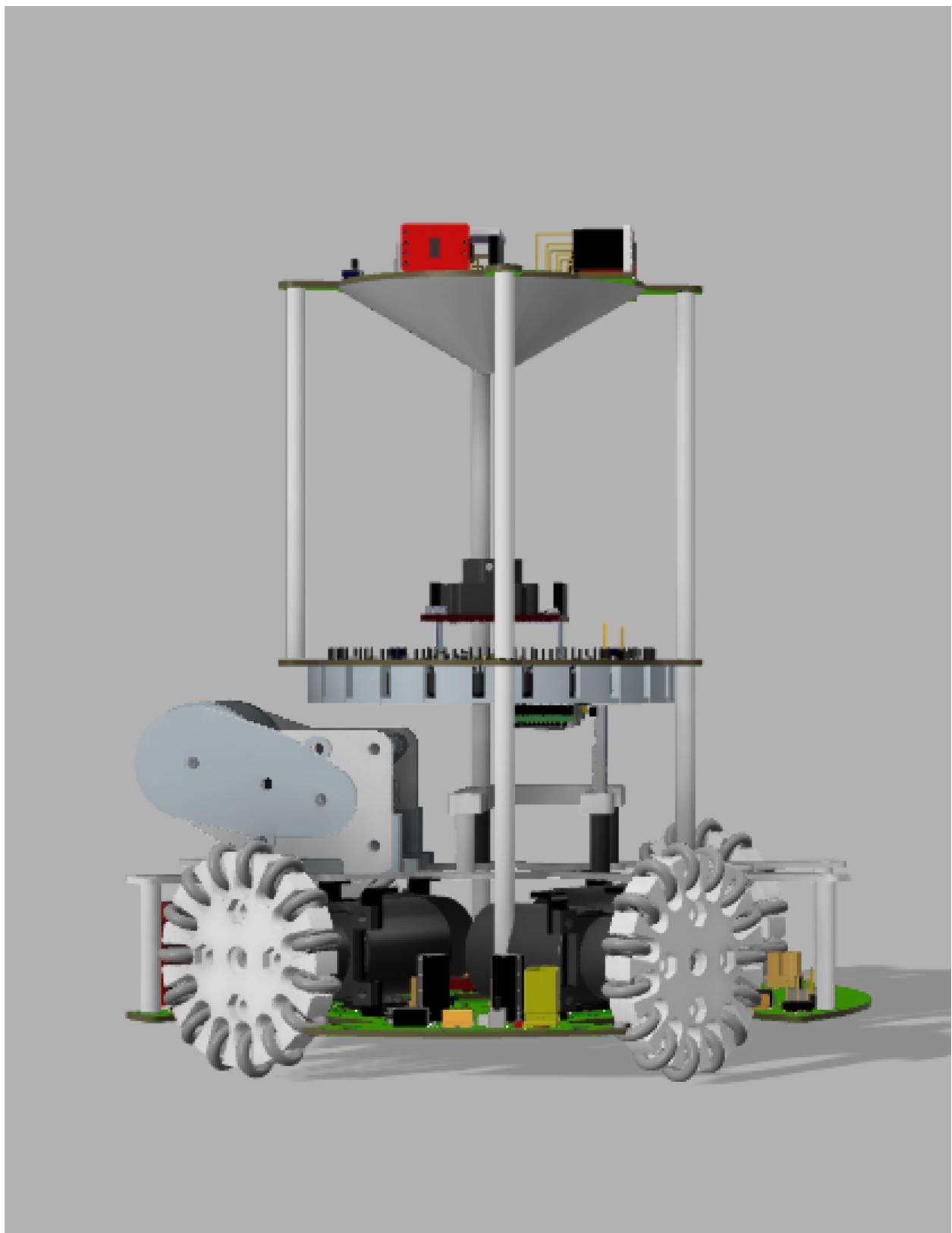


Figure 6: Right view of 3D model

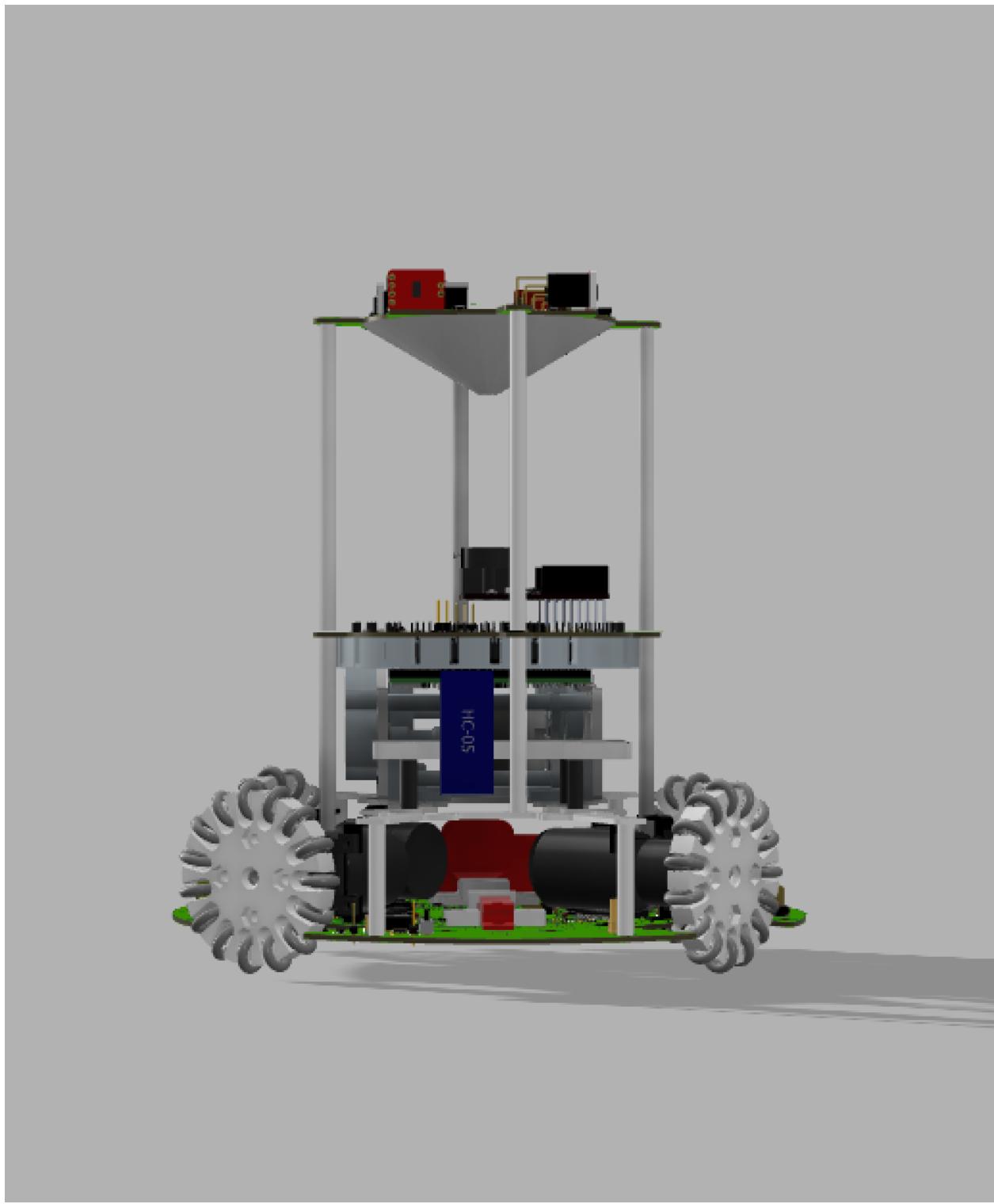
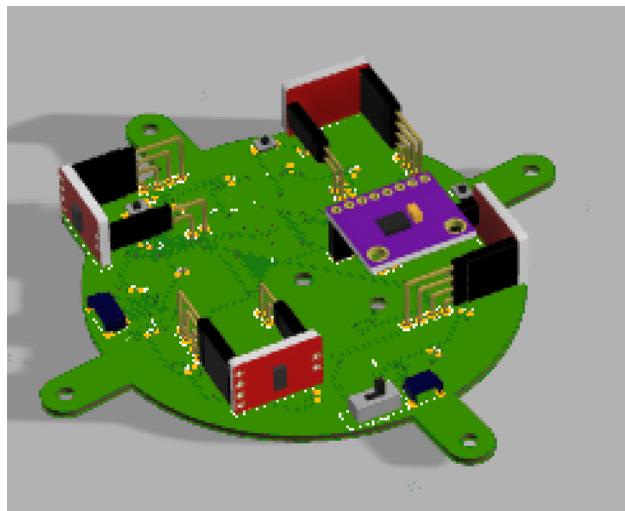
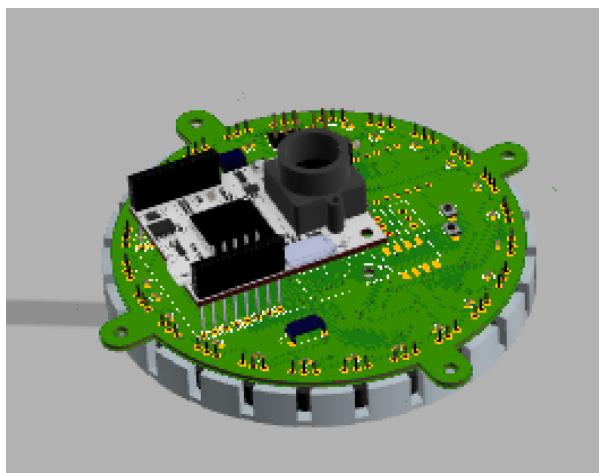
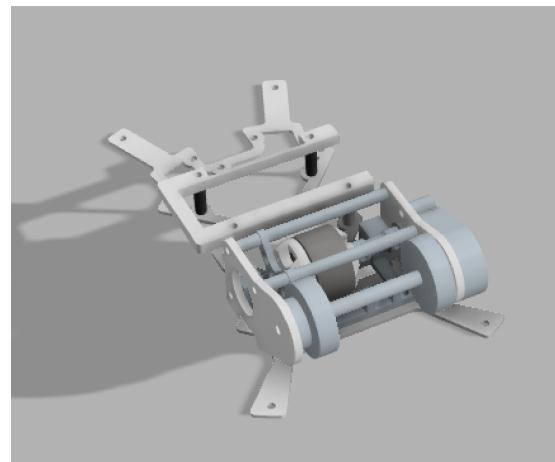
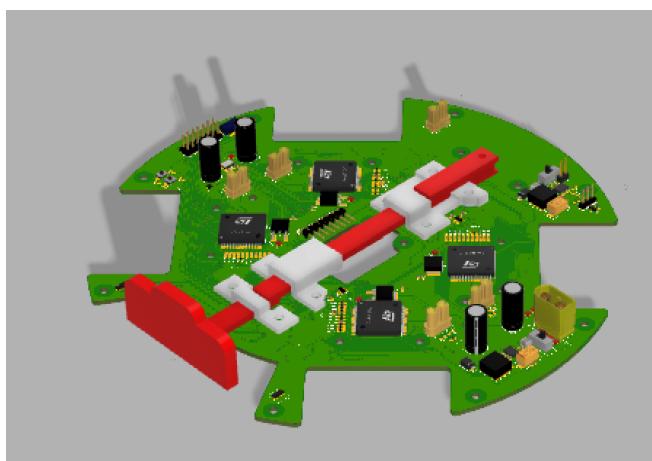


Figure 7: Back view of 3D model



Figures 8-11 Starting from top-left in a clockwise direction: Layer 1, Layer 2, Layer 3, Layer 4

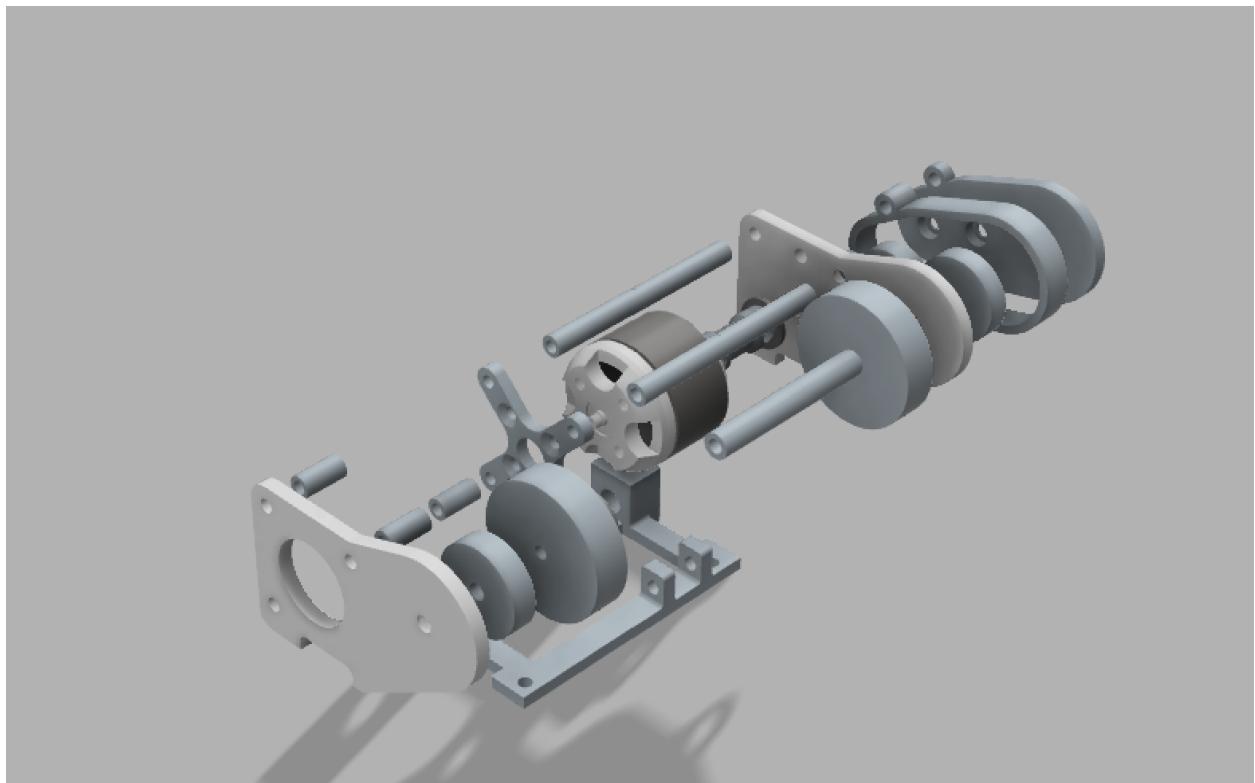


Figure 12: Exploded view of dribbler

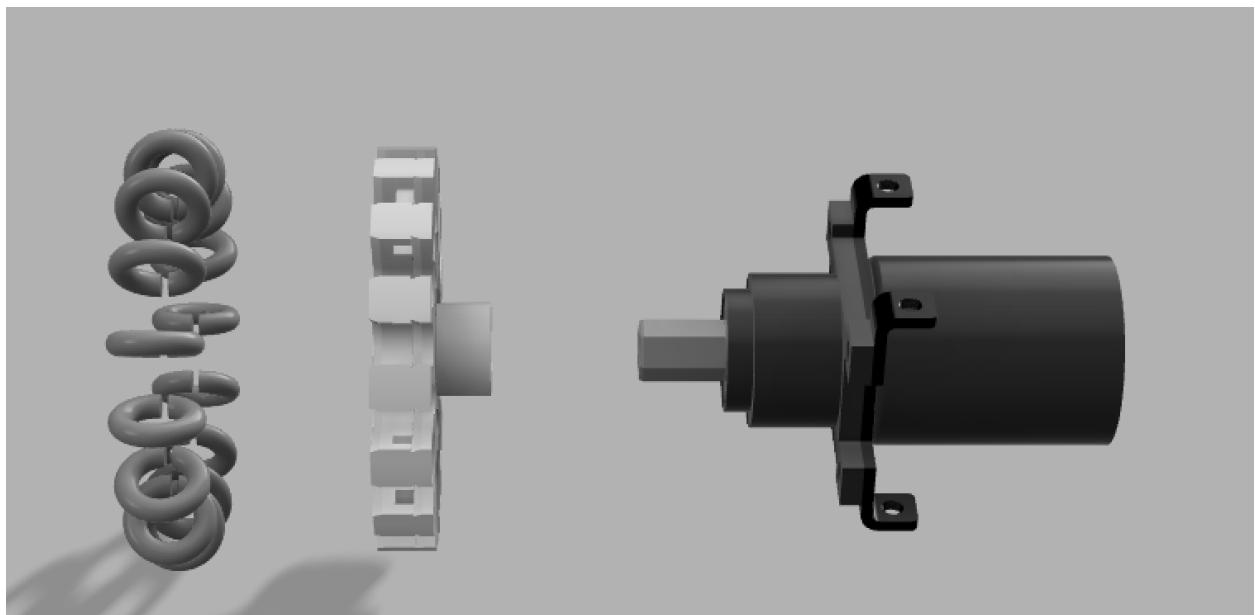


Figure 13: Exploded view of self-made omni-wheels

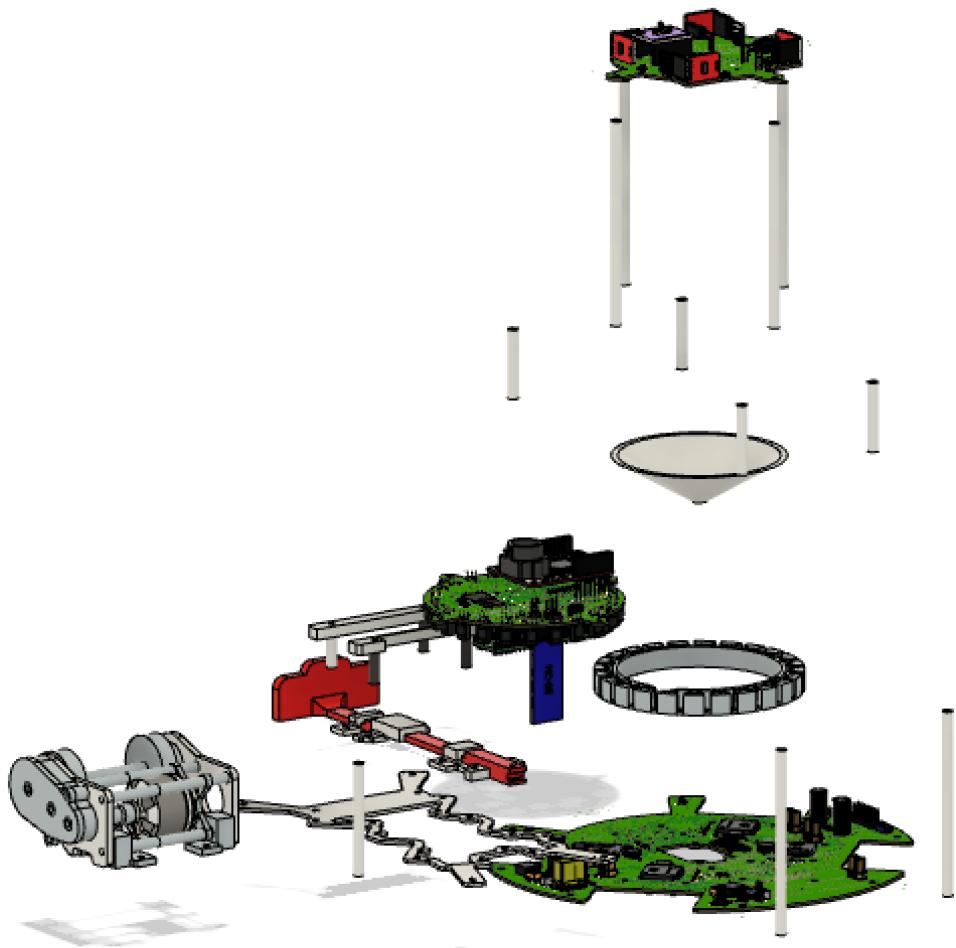


Figure 14: Exploded view of robot