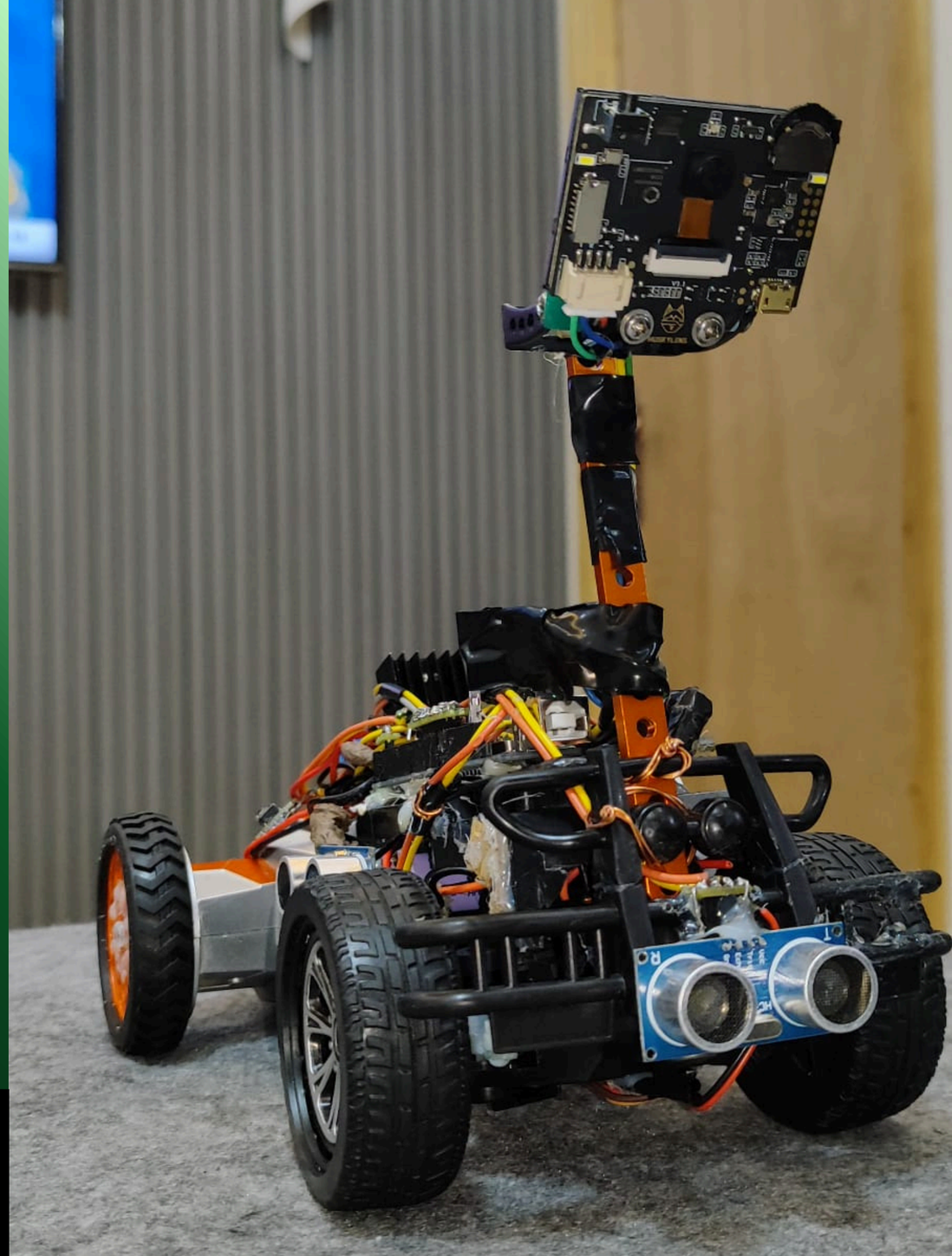
THE VEHICLE ASSEMBLY

This presentation shows a step by step MARS Vehicle assembly journal

MARS TEAM

AGENDA

1. Vehicle Components
2. Using Multiple cars
3. Installing the new components
4. Installing the electric components
5. The HuskyLens Installation
6. Extra car images
7. Final Look of the Vehicle

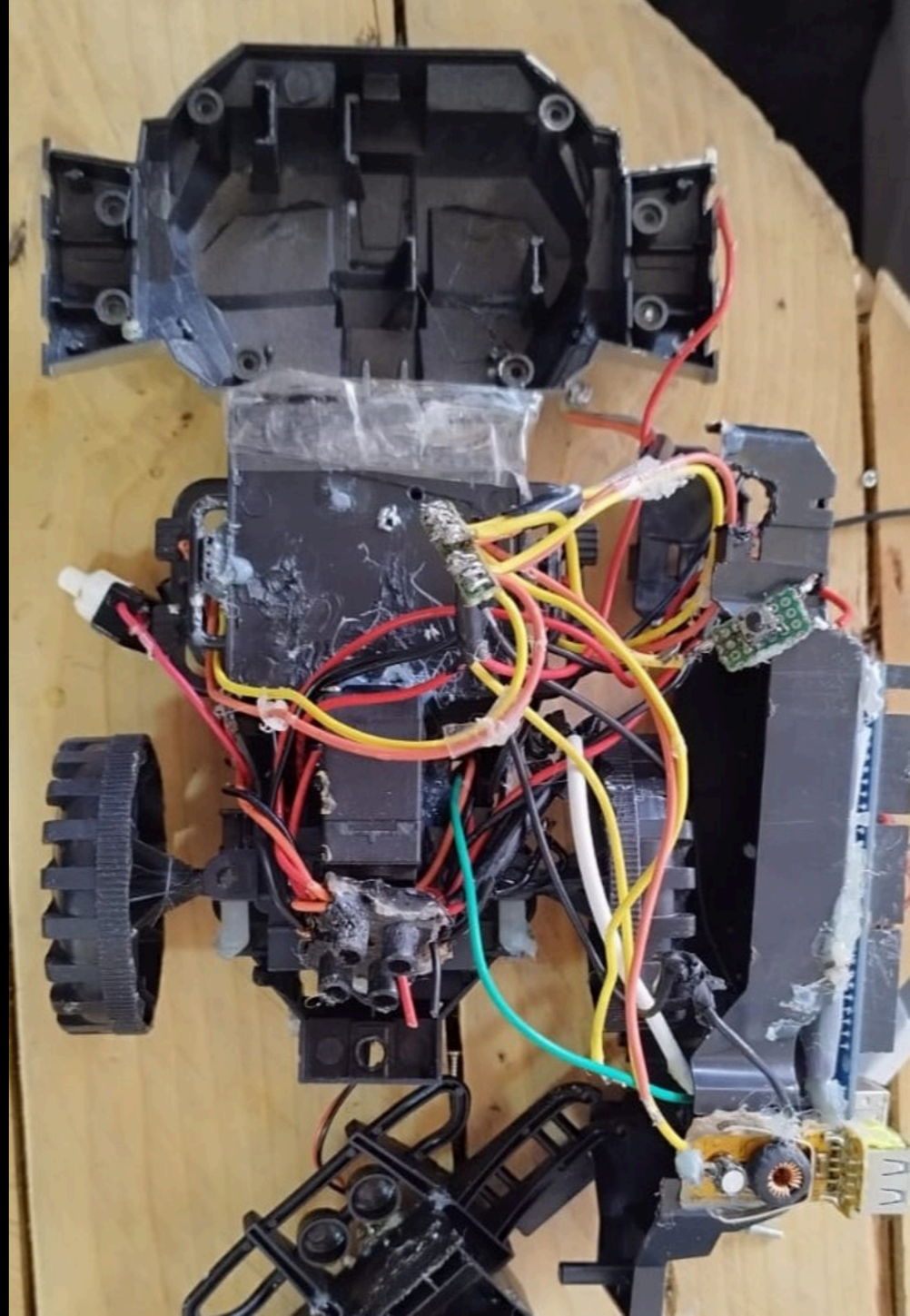


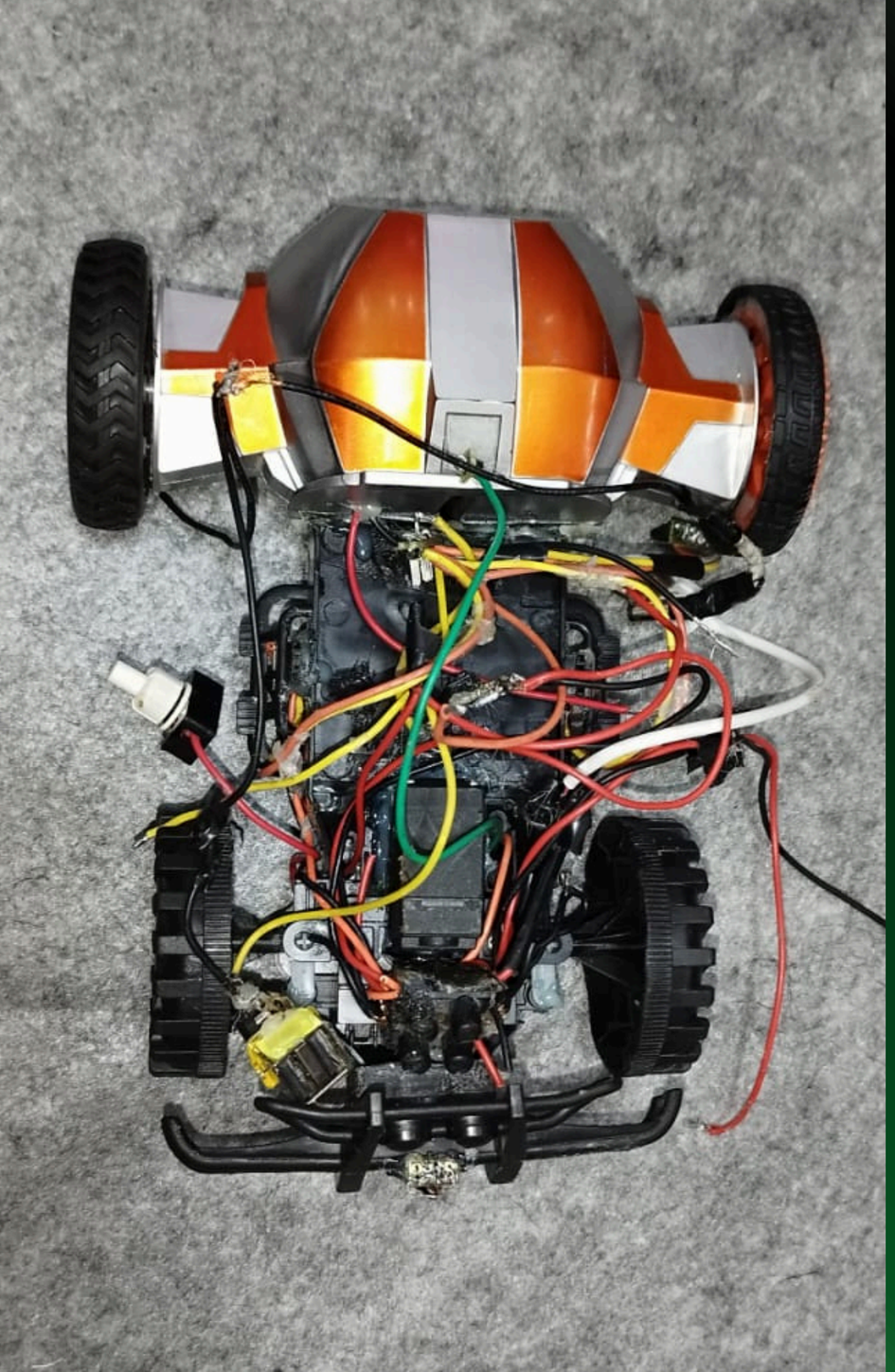
Vehicle Components

For the MARS Vehicle, multiple RC Cars were disassembled and components were taken from them, like Motors, wheels and gears, as seen in the picture.

Using multiple cars

The RC Car had a problem with it’s original Motor gears, so for that another car’s component was used, which was a plastic white piece on the back of the vehicle that contained Motors and gears which were overall better and steadier.





Installing the new components

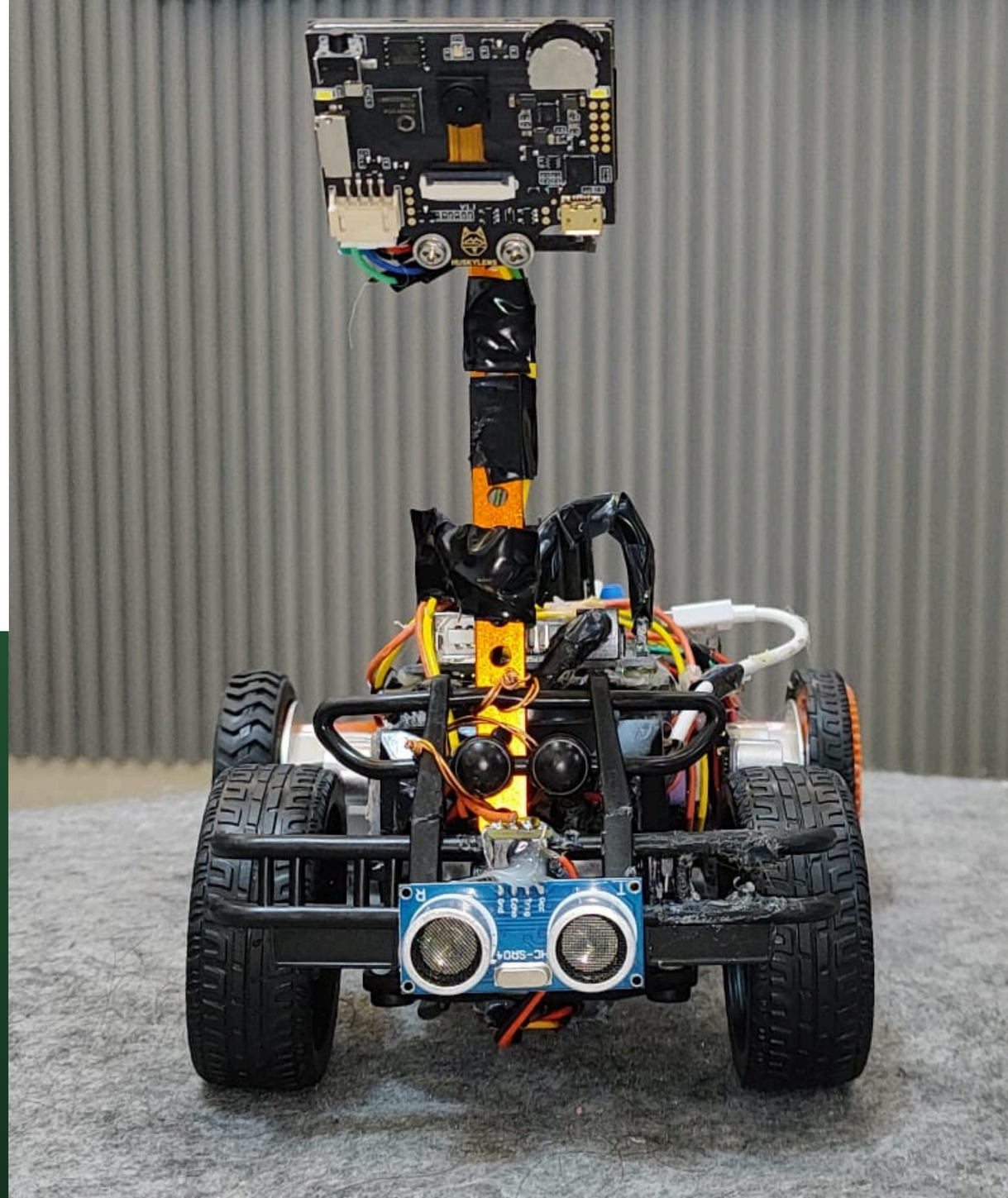
The plastic piece was then installed on the back of the Vehicle, then 2 new wheels were installed on the back that were taken from a robot-ready kit, then the motors in the plastic piece were connected to the Vehicle which is explained in detail in the Power Distirbution Managment in the GitHub readme.

Installing the electric components

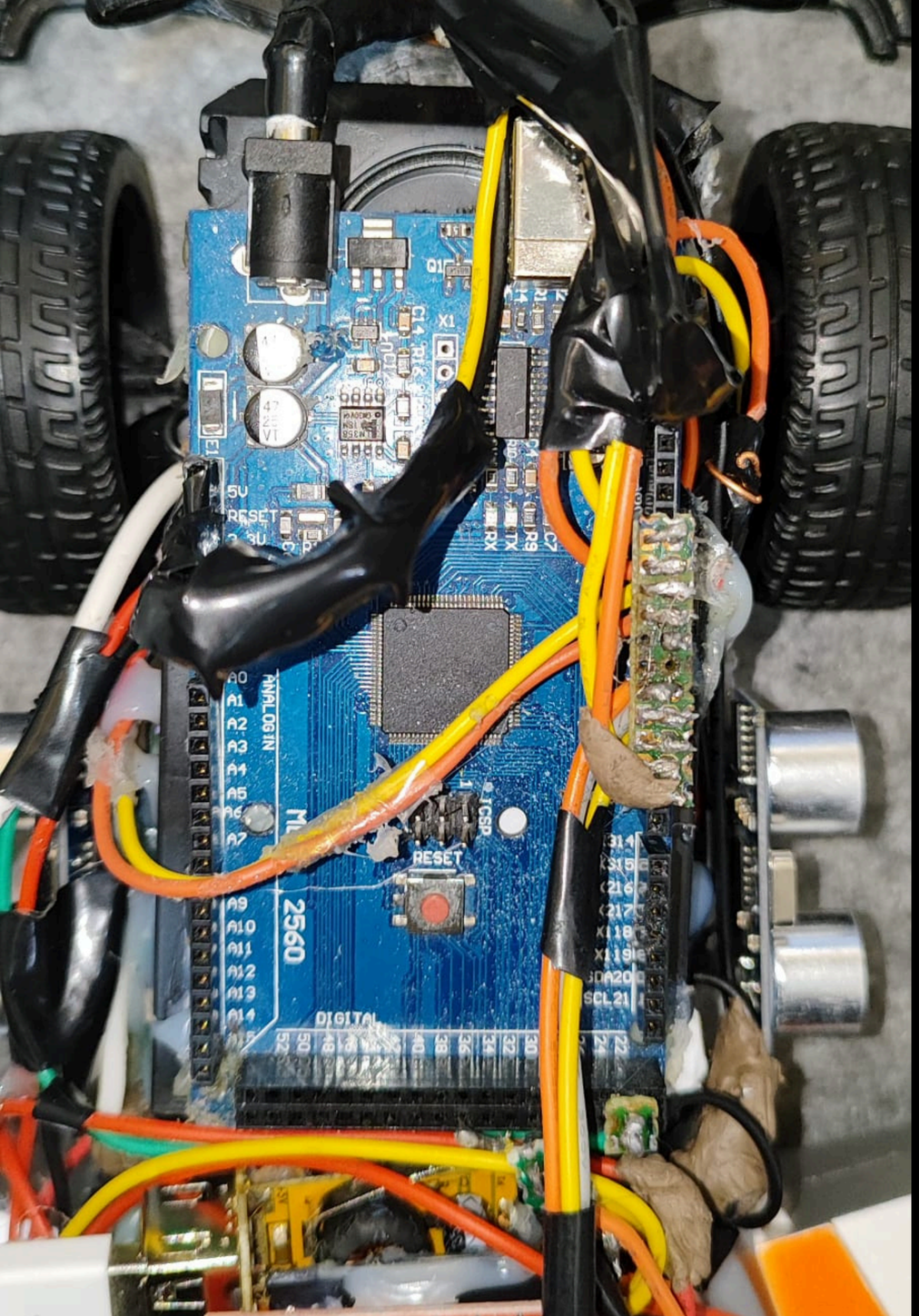
The top piece of the Vehicle was then installed and the Arduino with it as well as the cables to the pins on the board,. and the L298N Driver Motor installed alongside it, in between the Arduino and the bottom car body the 3 Lithium batteries were installed to preserve space.

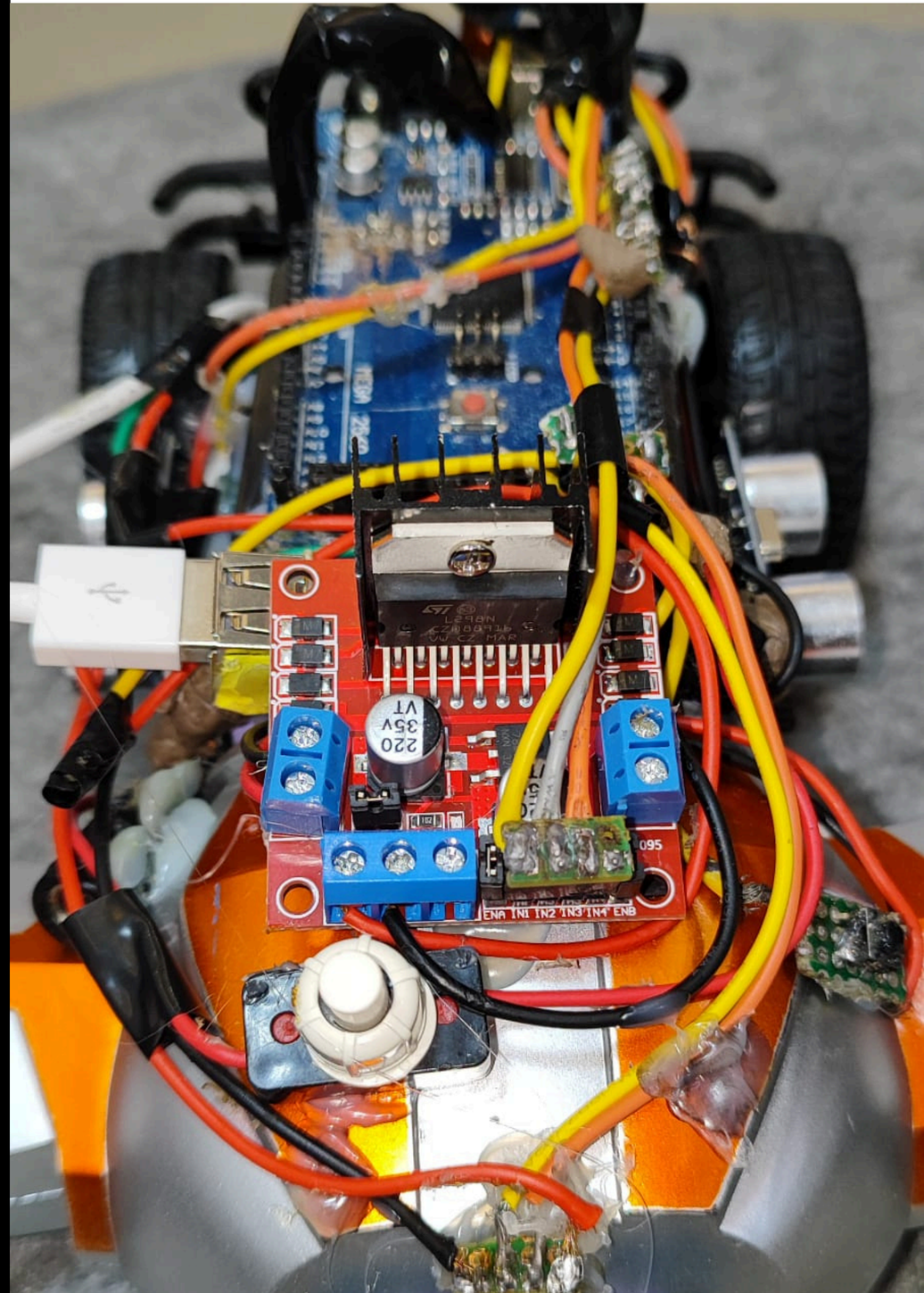
The HuskyLens Installation

The HuskyLens camera was installed on a tall metal piece at the front of the vehicle, the metal piece is approximately 13cm, this is to make the camera not see beyond the border walls.



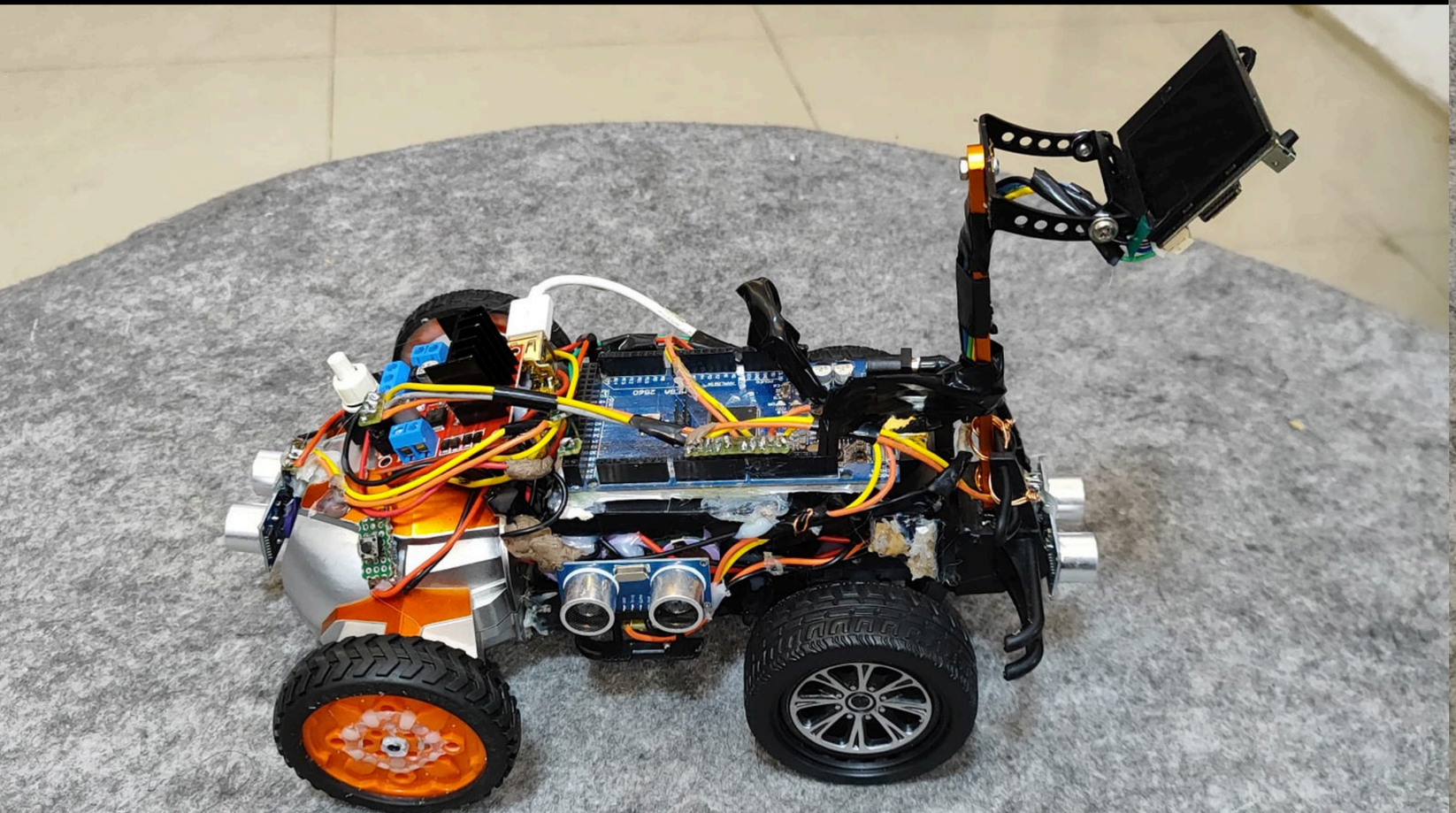
Extra Car images

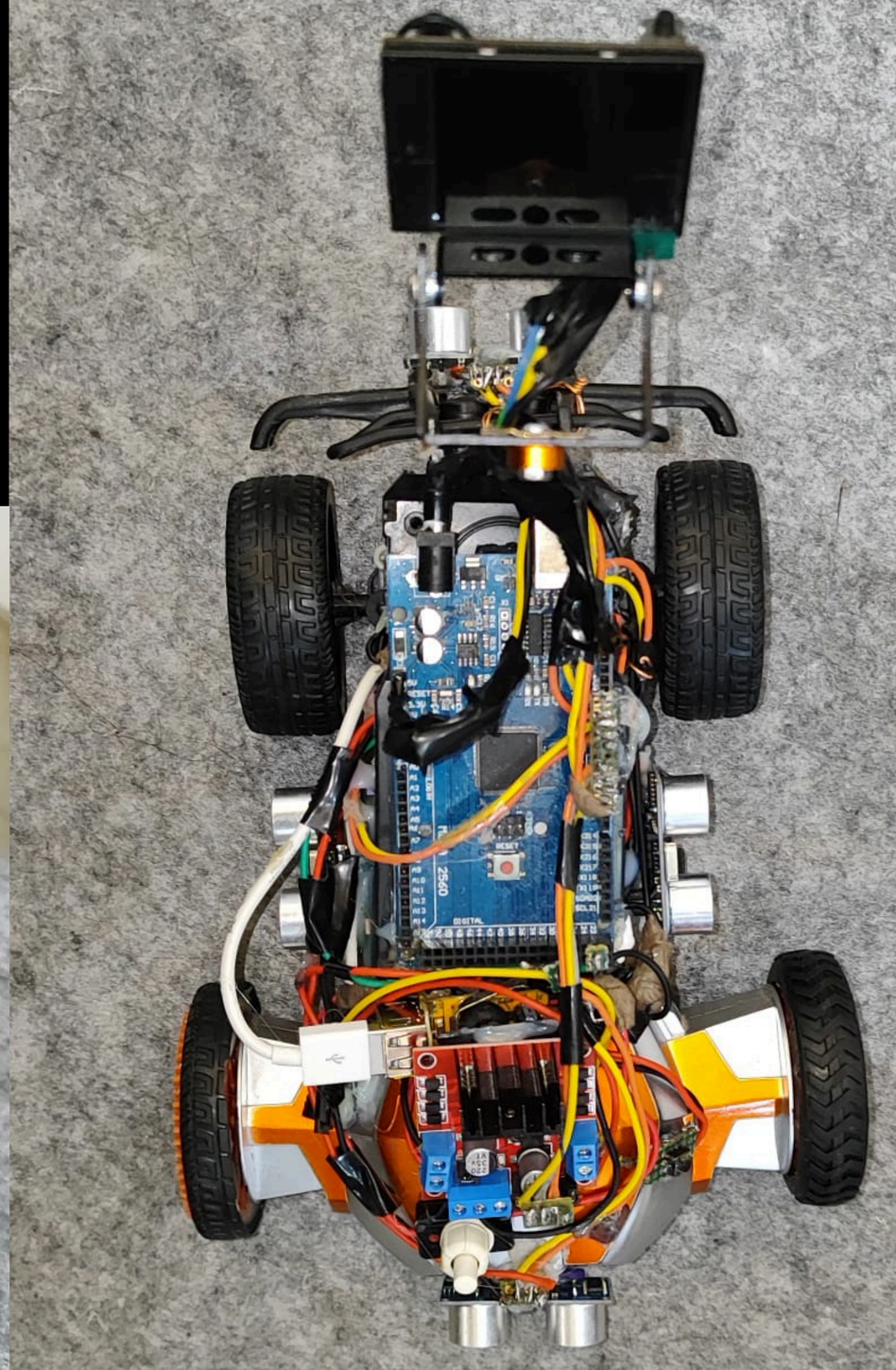




FINAL LOOK

This is how the Mars Vehicle looks after installing all the necessary components





THE END

This was the assembly of the MARS Vehicle and the necessary steps it took to install the components.

Thank You

Mars Team.