



MS101 | Makerspace Lab

Project Report

Week 2

Team Name: P3-T13

Team Members:

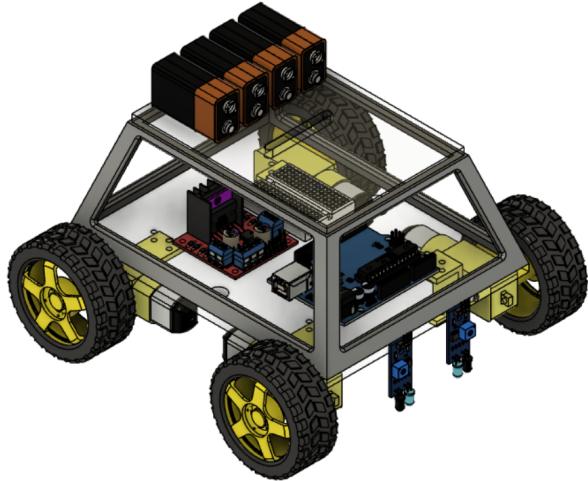
1. 22B2253 (Krishna Patil)
2. 22B2254 (Vedant Agarwal)
3. 22B2255 (Aryan Gupta)
4. 22B2256 (Krishna Khandelwal)
5. 22B2257 (Niranjan S)
6. 22B4511 (Ayush Mishra)

Procurement of Items

Item	Quantity	Source	Cost(INR)
L298n Motor Driver	1	Personal	0
Wheels(65mm)	4	Personal	0
BO Motors(100 rpm)	4	Personal	0
Breadboard	1	Personal	0
IR Sensors	2	Personal	0
Lower Chassis	2	Laser Cutting	0
Battery(9V)	10	Mangaldeep Stores	340
Clamps	4	Mangaldeep Stores	80
Bluetooth Module(HC-05)	1	Personal	0
Servo Motors	2	Personal	0
Screws(3mm)	16	Mangaldeep Stores	40
Black Electrical Tape	1	Mangaldeep Stores	30
Upper Chassis Support	1	3D Printing	0
Upper Chassis	1	Laser Cutting	0

Total Cost = ₹490

Fabrication of Parts



The above is a rough estimate of our project, which we made on Fusion 360. Note that the arm has not been shown here. (Few components have been taken from <https://grabcad.com>)

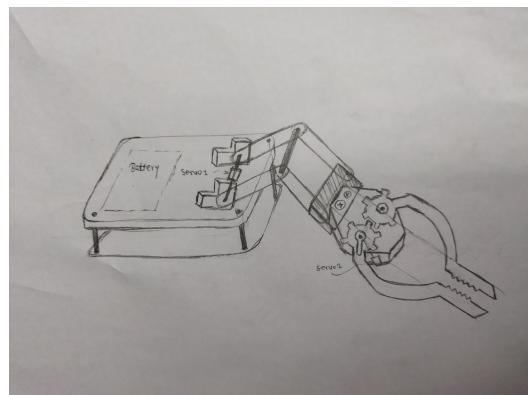
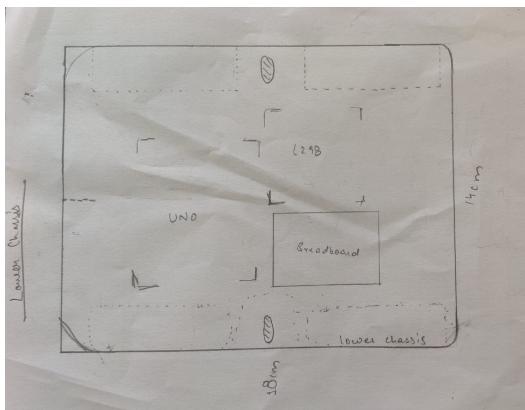
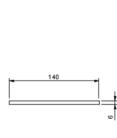
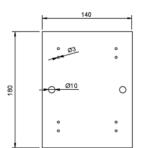
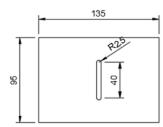


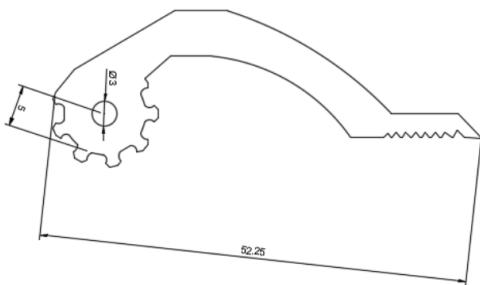
Diagram not drawn to scale



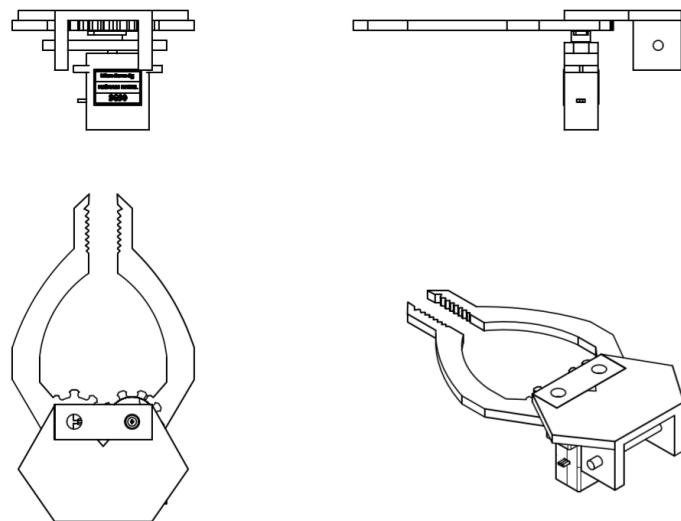
Lower Chassis



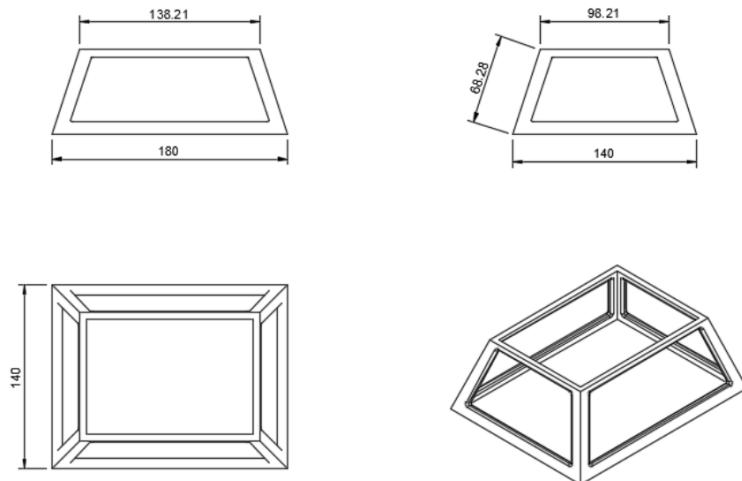
Upper Chassis



Claw Teeth



Complete Claw with Servo Motor

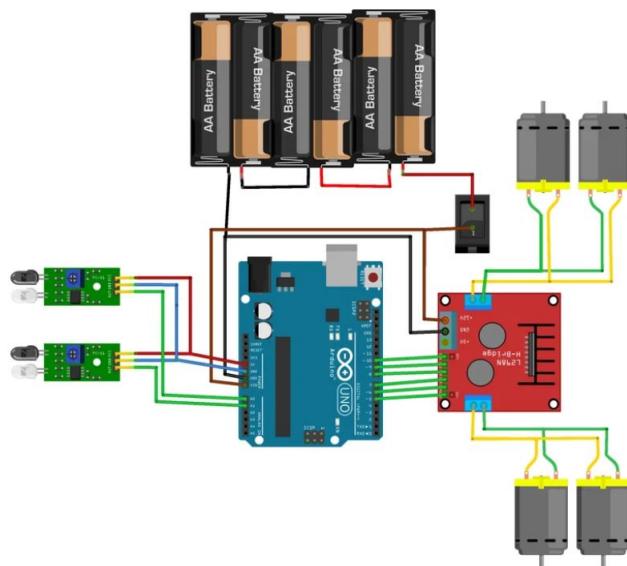
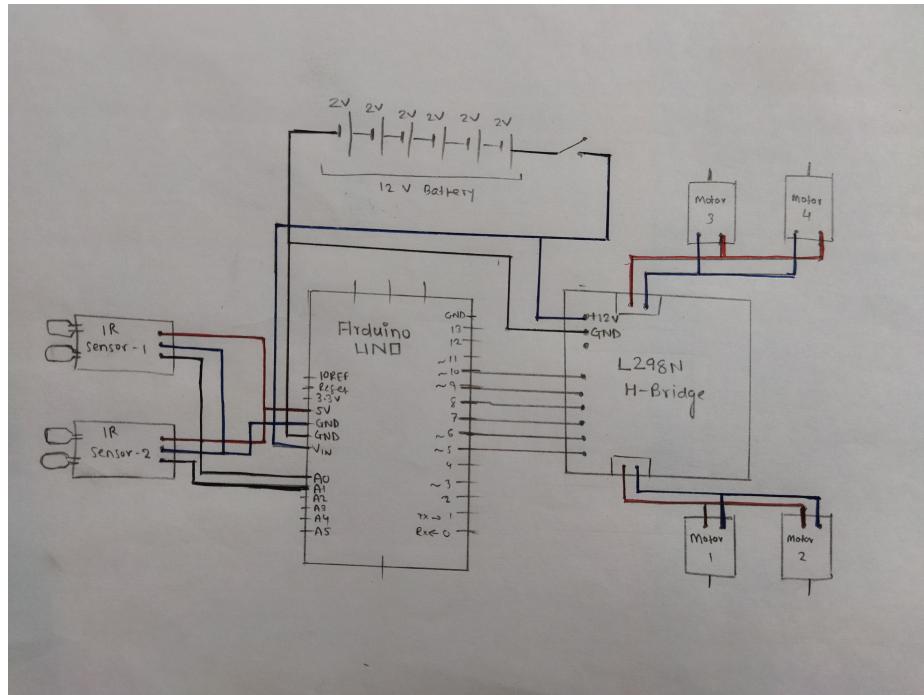


Upper Chassis Support

Fabrication Videos

- Lower Chassis Cutting: <https://youtu.be/GiuNDyM5ZoE>

EE Design



Source : <https://www.instructables.com/Line-Follower-Robot-Using-Arduino-Uno-and-L298N/>

EE Design and Code Testing

- Line Follower: <https://youtube.com/shorts/ux0m8CKe7bw?feature=share>
- Bluetooth Module: <https://youtu.be/aon3loInvY4>

Codes

- <https://github.com/vedantA04/ms101-group-project>

References

- <https://www.instructables.com/Line-Follower-Robot-Using-Arduino-Uno-and-L298N/>
- <https://grabcad.com>
- <https://youtu.be/F2m7U23CCfs>
- <https://github.com/Rupakpoddar/Bluetooth-operated-car>