1. Mobility Management

Our self-driving autonomous car relies on a simple yet precise mechanism for mobility. The following parts/instruments for the movement are mentioned:

1. Motors:

Number of Motors: 1

Type of Motor: Friction Motor

2. Vehicle Design/ Chassis:

Chassis Type: Steering Chassis, 4-wheeled (customized wheel)

Modification of Chassis: Although we used a ready-made chassis, we modified the upper and lower layers.

Driving axle: Rear Axle

Steering actuator: MG996R Metal Gear Servo Motors

i) Upper layer: We made screw holes to mount equipment used in the car. We modified the extra plating of the upper layer to mount the servos.

ii) Lower layer: We shaped the lower part for the placid movement of the car.

Motor Speed, Power, Torque:

i) Speed: 3.7 volts are supplied to the motor. The motor runs efficiently and provides sufficient speed for mobility. It has a RPM of 800.

ii) Power: Due to the output of 3.7 volts to the motor, it runs sufficiently for the purpose of self-driving.

iii) Torque: The motor is low-torque. It can easily carry microcontrollers, sensors, etc with this amount of torque.