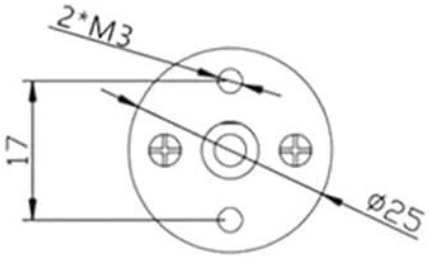
Motor DC

The DC Geared Motor provides the necessary mechanical power to drive the Single-Motor Rear-Wheel Drive (RWD) system. This component is a standard 9V DC motor with an integrated gearbox . The gear reduction is critical; it increases the motor’s torque significantly while reducing the output RPM, providing the crucial force needed for propulsion and enabling precise speed control at lower velocities. The motor is directly controlled by the 9V power output from the L298N Motor Driver, which utilizes PWM signals from the Raspberry Pi to modulate both speed and direction.

For efficient performance and to stay within the L298N driver's safe operating limits, the motor's current draw is estimated to be less than 1.5A under typical load. While specific torque and RPM values are often custom to the supplier, the motor is generally rated for approximately 300 RPM at 9V and provides sufficient torque (estimated cm) to manage the robot's mass and ‧at ~ 5-10 kg navigate the competition course


7mm
4mm
8mm
11.5mm
L
30.8mm
24.5mm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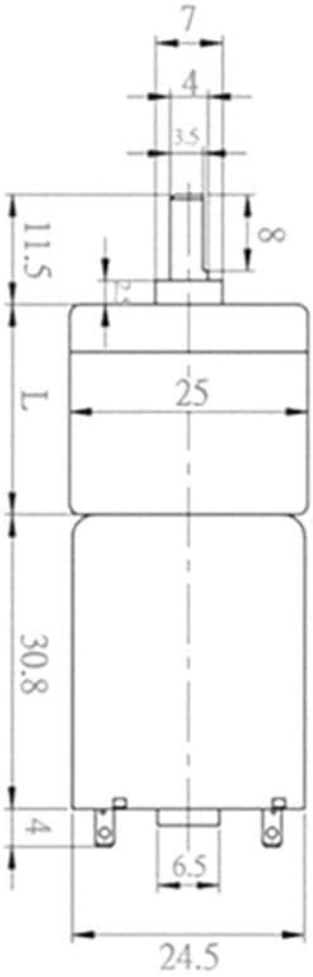
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