

# Hardware

## Hardware List:

1. Arduino Uno
2. Adafruit Motor Shield v1 (L293D-based)
3. DC Gear Motors ×4
4. Ultrasonic Sensors (HC-SR04) ×3
5. Chassis
6. Wheels ×4
7. Battery Pack (6–12 V for motors, e.g. Li-ion / NiMH / 9V battery pack, depending on motor rating)
8. Jumper wires (male–male, male–female) — for sensor and power connections
9. Mount brackets for ultrasonic sensors (Optional)- to hold Left/Center/Right sensors at proper angle
10. Switch (optional) — to easily power on/off the robot
11. Breadboard (optional) — for easy wiring if not soldering

**Tip:** Keep the three ultrasonic sensors at about 30–45° angles from each other for better obstacle detection.