





NOTE : USE 1K and 2K Resistor to convert the logic level voltage to 3.3v for Bluetooth Module.

Arduino UNO R3

- **D13** to **ENB** of L298N DC motor driver
- **D10** to **IN4** of L298N DC motor driver
- **D9** to **IN3** of L298N DC motor driver
- **D8** to **IN2** of L298N DC motor driver
- **D7** to **IN1** of L298N DC motor driver
- **6** to **ENA** of L298N DC motor driver
- **GND** to **GND** of HC-05 Bluetooth Module, **GND** of L298N DC motor driver, **Negative** of 18650 Li-Ion
- **Vin** to **5V** of L298N DC motor driver, **VCC** of HC-05 Bluetooth Module
- **D0/RX** to **TXD** of HC-05 Bluetooth Module
- **D1/TX** to **RXD** of HC-05 Bluetooth Module

L298N DC Motor Driver

- **ENB** to **D13** of Arduino Uno R3
- **IN4** to **D10** of Arduino Uno R3
- **IN3** to **D9** of Arduino Uno R3
- **IN2** to **D8** of Arduino Uno R3
- **IN1** to **D7** of Arduino Uno R3
- **ENA** to **6** of Arduino Uno R3
- **GND** to **GND** of Arduino Uno R3, **GND** of HC-05 Bluetooth Module, **Negative** of 18650 Li-Ion
- **5V** to **Vin** of Arduino Uno R3, **VCC** of HC-05 Bluetooth Module
- **OUT4** to **pin 1** of Hobby Gear motor
- **OUT3** to **pin 2** of Hobby Gear motor
- **OUT1** to **pin 1** of Hobby Gear motor
- **OUT2** to **pin 2** of Hobby Gear motor
- **12V** to **COM** of Toggle Switch

HC-05 Bluetooth Module

- **GND** to **GND** of Arduino Uno R3 , **GND** of L298N DC motor driver, **Negative** of 18650 Li-Ion
- **VCC** to **5V** of L298N DC motor driver, **Vin** of Arduino Uno R3
- **TXD** to **D0/RX** of Arduino Uno R3
- **RXD** to **D1/TX** of Arduino Uno R3

18650 Li-Ion

- **Negative** to **GND** of Arduino Uno R3, **GND** of HC-05 Bluetooth Module, **GND** of L298N DC motor driver

Toggle Switch

- **L1** pin to **Positive** pin of 18650 Li-Ion battery
- **OM** pin to the **12V** pin of L298N DC motor driver