

Chassis Assembly

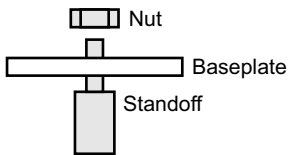
- Use your motor driver and Arduino templates to help find the correct holes
- Make sure the narrow set of mounting holes is on your right
- Install 6 short standoffs on top of the base plate in the marked holes using short bolts

Narrow set of mounting holes

Top

- Install 4 short standoffs and 2 long standoffs on the bottom of the base plate

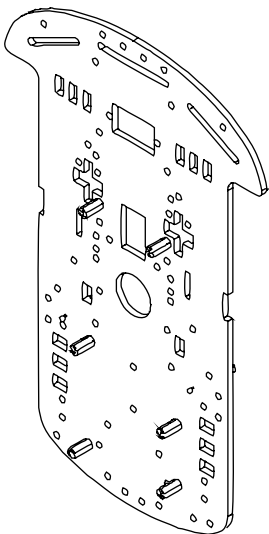
Long Standoffs:



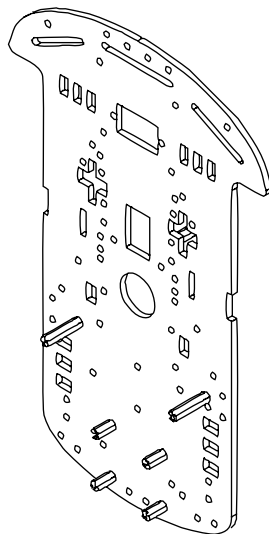
Long Standoffs (x2)

Short Standoffs (x4)

Bottom

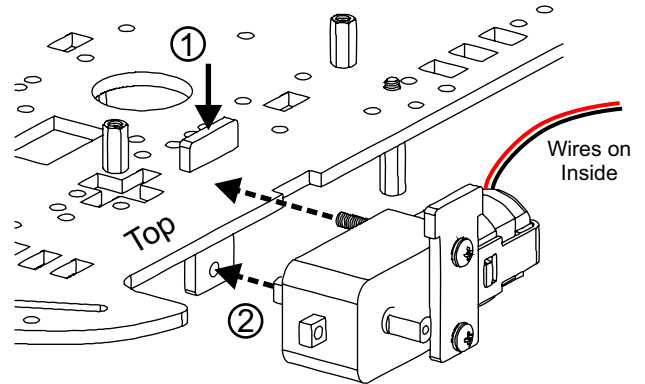


Top

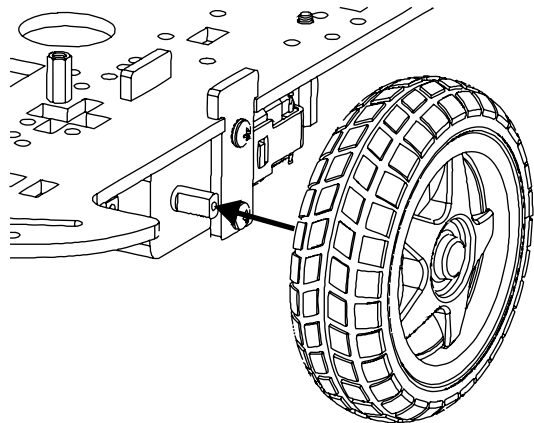


Bottom

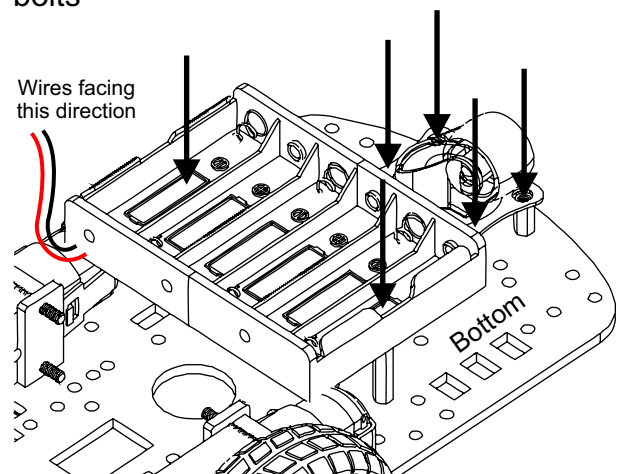
- Slide one of the T-shaped plastic pieces through one of the slots in the base as shown
- Add a motor and second T using two long bolts and nuts
- Repeat for the other side



- Press a wheel onto each motor
- Make sure the flat sections on the motor shaft line up with the flat sections on the wheel shaft

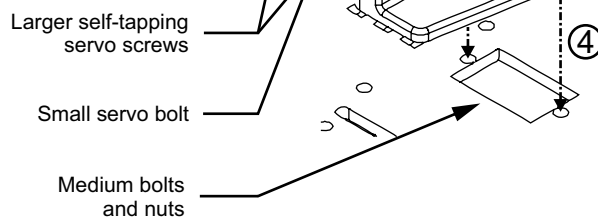


- Install the caster and battery pack using short bolts

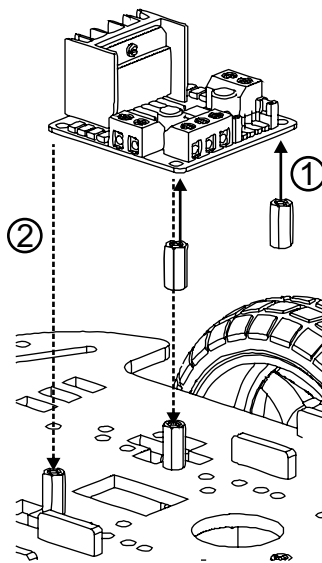


Electronics Assembly

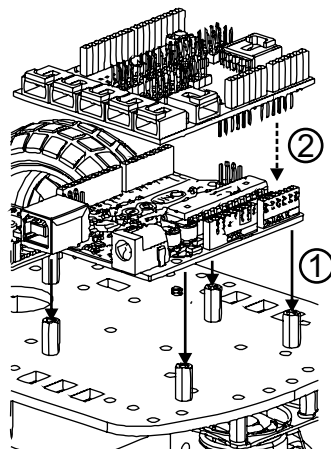
- Assemble your ultrasonic sensor turret in the order shown
- Make sure the top part can rotate 90° each direction, but **be careful not to turn it too far** because the plastic gears inside can break
- Mount the sensor to the front of the base



- Install 2 short standoffs on the side of the motor driver opposite the heatsink using short screws (these help support the motor driver, but they are not connected to the base plate)
- Mount the motor driver to the two standoffs on the base using short screws
- Remove the two small jumpers on the header

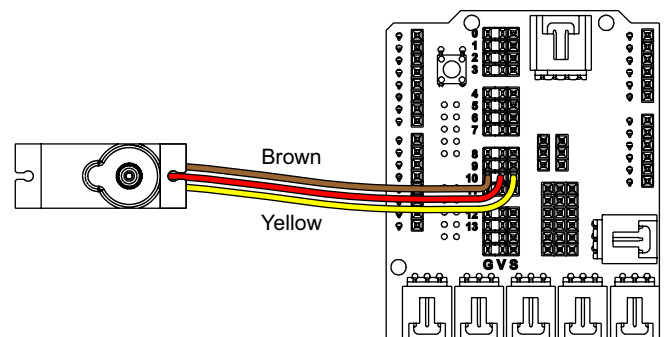
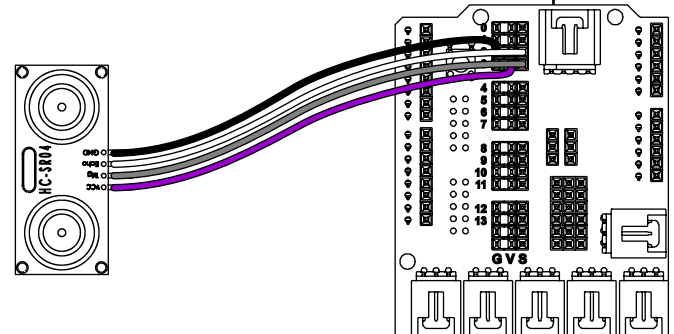
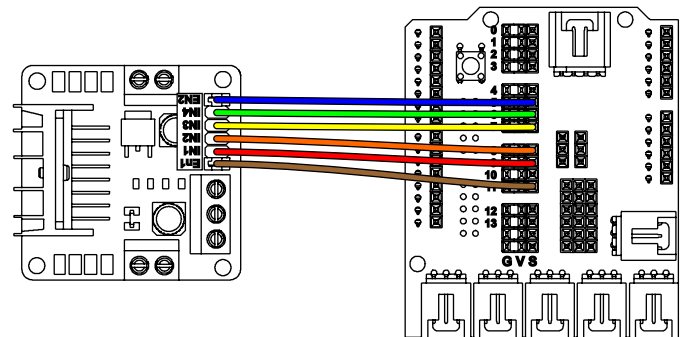
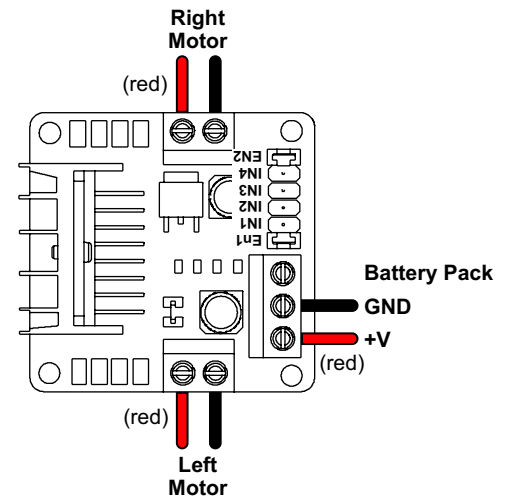


- Mount the Arduino to the four standoffs on the base using short screws
- Carefully press the sensor shield into the headers on the Arduino



Wiring

- Wire your components as shown using the attached wires and jumper wire pack
- Zip tie all wires away from the wheels



For tutorial videos, visit:
makeapede.com/buildyourownrobot