EDROID

Website: www.edroidtech.com **Office:** (852) 2572 8224

Sales: sales@edroidtech.com **Fax:** (852) 2838 2229

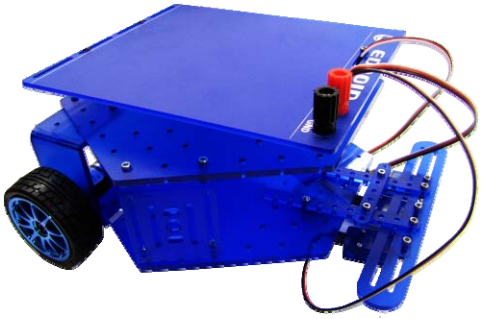
Technical: support@edroidtech.com

NAVIDROID ROBOT

The Navidroid robot from Edroid Technology CO., LTD provides a mid-size platform for a wide range of robotics projects and experiments. The start kit supports mechanical frame and electrical components to achieve the mission of tracking line for the robot. It covers the basic principles of analog and digital circuits as well as robot sensing and control mechanisms.

Features

- 4 photoresistor light sensors
- 2 independent DC motors
- Integrated dual full bridge motor driver
- Multiple mounting locations for sensors, add-ons, etc.
- Implement of control logical design



Bill of Materials

Item No.	Original Quantity	Accessories	Description
(1)	2	DC Motor	Planetary Gear Motor,12VDC, 200 RPM, 4mm shaft, selective encoder
(2)	2	Chassis Plate	Main Frame of the protobot
(3)	2	Wheel	High-quality model wheel
(4)	2	Metal Wheel Coupler	
(5)	2	Motor Mount Plate	

(6)	1	Metal Ball Caster	
(7)	1	Line Sensor Mount Plate	
(8)	4	Sensor Mount Plate	
(9)	2	Bar, 6 holes	
(10)	2	Bar, 9 holes	
(11)	2	Bar, 11 holes	
(12)	4	Standoff, 25mm Long	
(13)	40	Nut, M3	
(14)	15	Screw, Hex, M3x6	
(15)	40	Screw, Hex, M3x12	
(16)	2	Screw, Hex, M4x10	
(17)	4	Digital Line Sensor	Capable to adjust sensitivity, output TTL signal
(18)	4	Line Sensor Wires	
(19)	4	Screw, Flat-Cross, M3x6	
(20)	4	Screw, Flat-Cross, M3x16	
(21)	1	Breadboard, PB-103	
(22)	1	Tool, Hex Key, M3	
(23)	1	Tool, Hex Key, M4	
(24)	1	Tool, Socket Spanner	
(25)	1	Tool, Tweezers	
(26)	1	Tool, Screwdriver, Cross	
(27)	1	Tool, Wire Stripper	
(28)	1	UT10A Multimeter	Pocket-Size, low battery display, auto sleep mode
(29)	1	Small Tool Box	F-141: For small mechanical parts and tools
(30)	1	Medium Tool Box	F-200: For large mechanical parts and tools
(31)	1	Navidroid Kit Box	

Note: The item numbers appear in all the illustrations that appear in the Assembly Instructions

Assembly Instructions

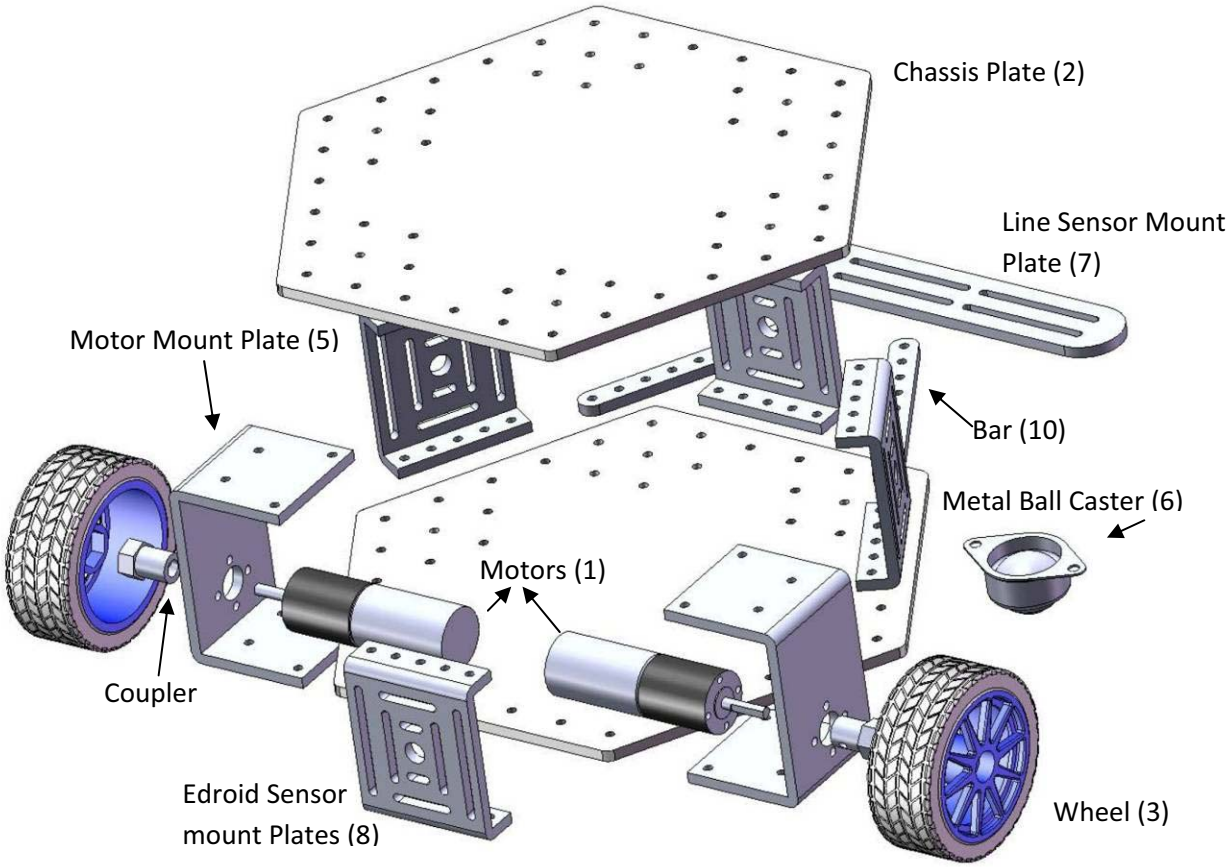
Preparation

Match the Bill of Materials against the parts in your kit to make sure all parts are present.

Find a clean workspace on which to assemble your robot.

Organize tools and parts prior to starting the assembly and separate parts by type to make it easier to gather them during the assembly process.

Throughout the assembly process, when tightening screws be sure to get them nice and snug but do not over-tighten them or you may strip the threads.



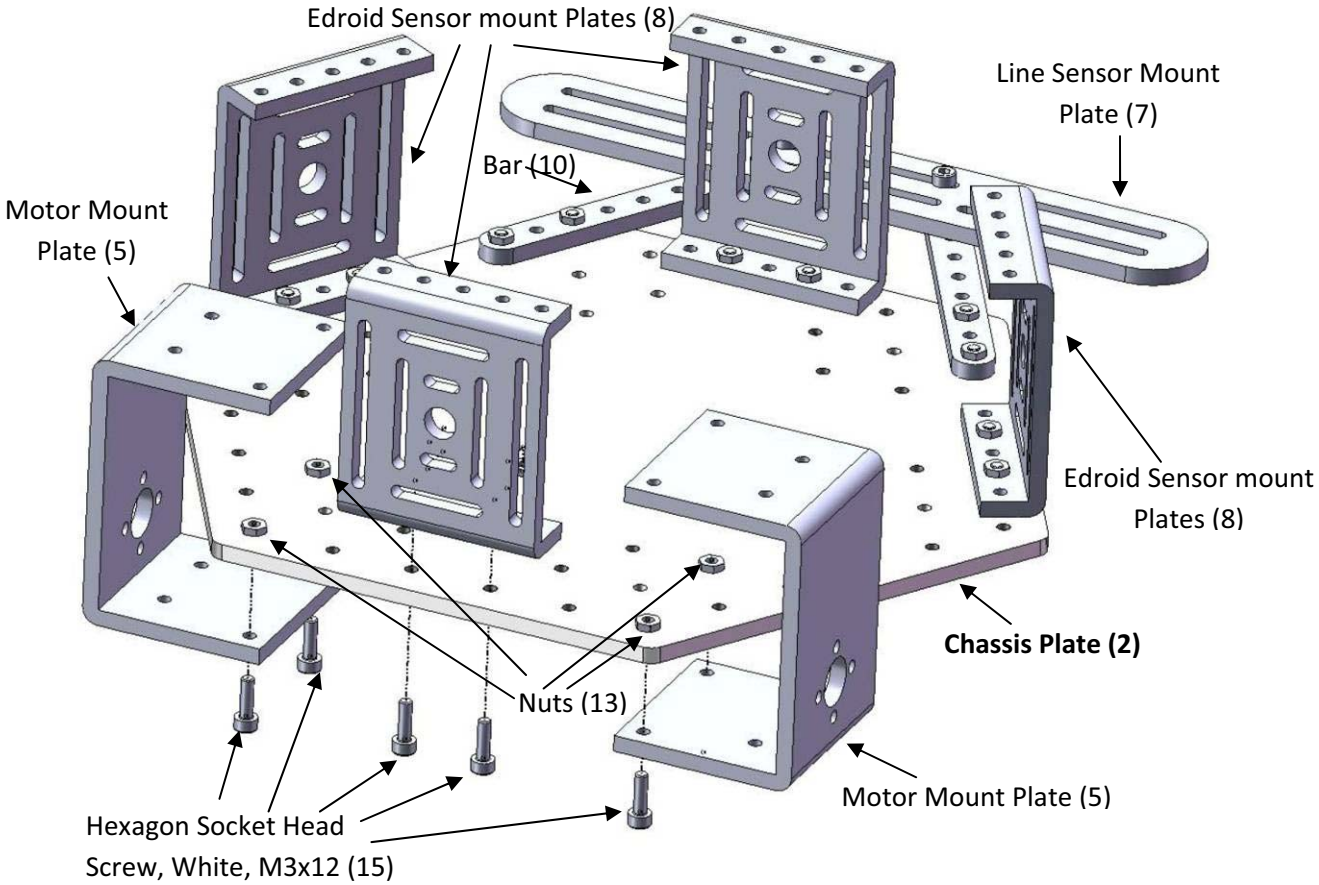
STEP 1: Chassis Assembly (Bottom part)

Parts Required

Chassis Plate	1PCS	Sensor Mount Plate	4PCS
Motor Mount Plate	2PCS	Line Sensor Mount Plate	1PCS
Bar	2PCS	Screw,M3×12	18PCS
Nut, M3	18PCS		

Tools Required

M3 Hex Key (included)



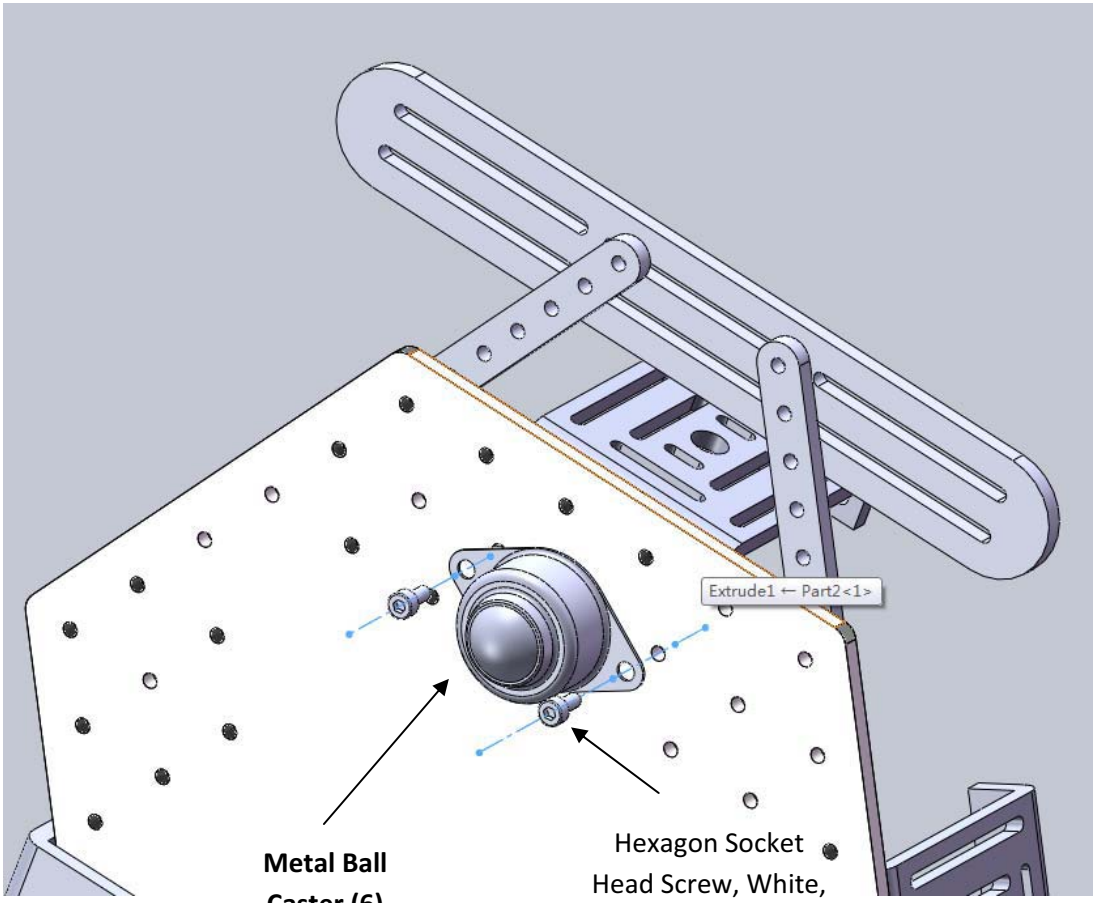
STEP 2: Metal Ball Caster Installation

Parts Required

Metal Ball Caster	1PCS
Screw, M3×12	2PCS
Nut, M3	2PCS

Tools Required

M3 Hex Key (included)



STEP 3: Installation of Motors

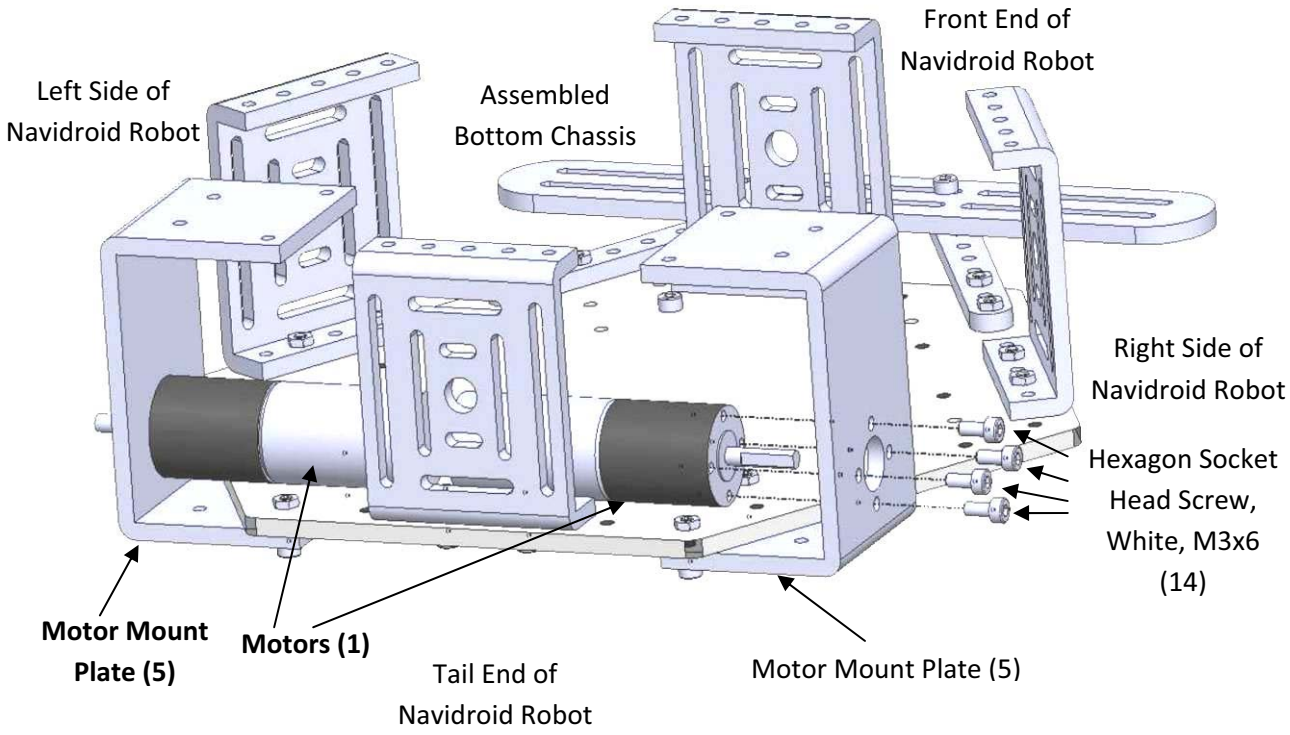
Parts Required

Motor, 12 VDC, 200RPM	2PCS
Screw, M3×6	8PCS

Tools Required

M3 Hex Key (included)

Be sure all four screws in each motor are very snug, but do not over-tighten.



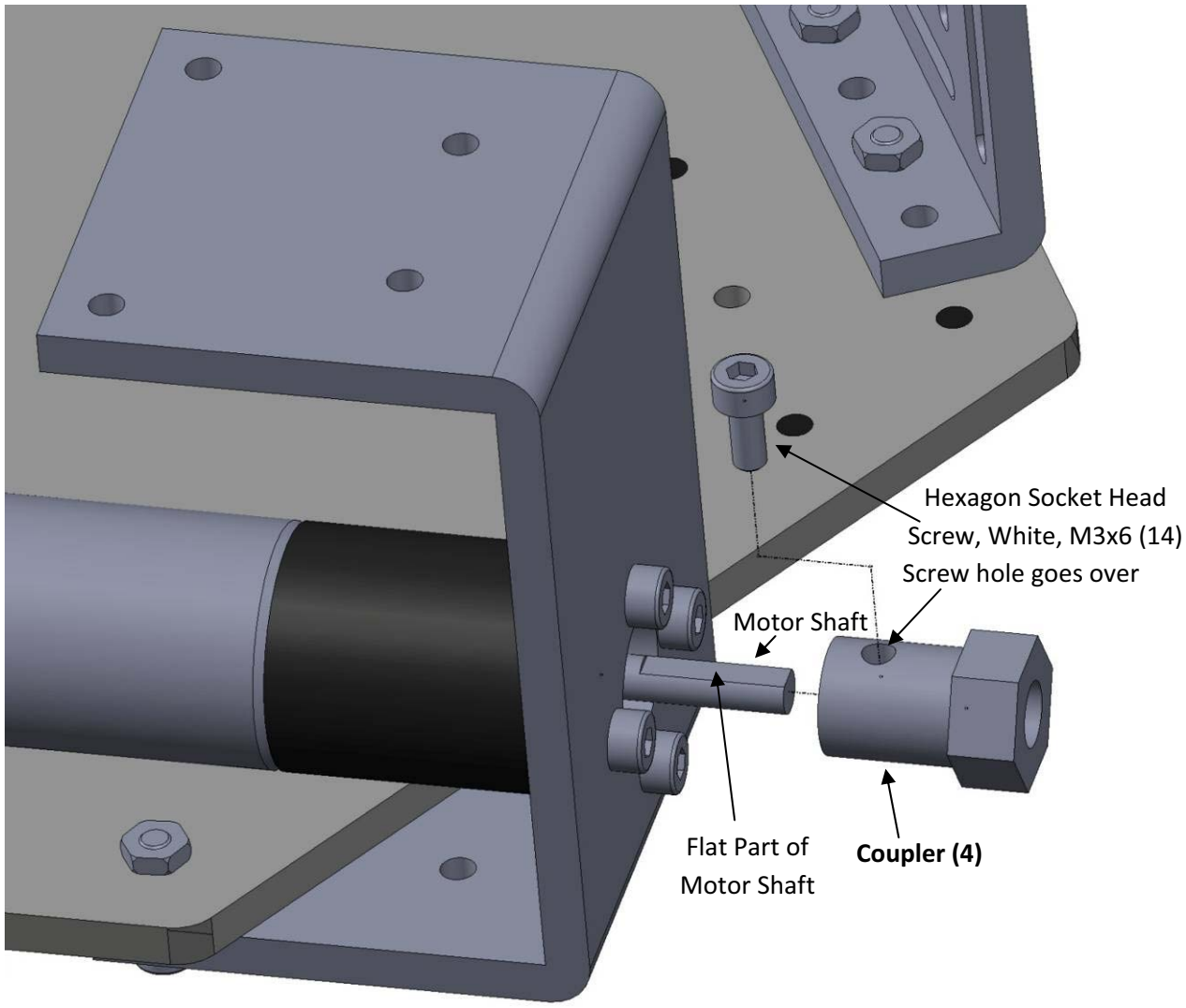
STEP 4: Coupler Installation

Parts Required

Coupler	2PCS
Screw, M3×6	2PCS

Tools Required

M3 Hex Key (included)



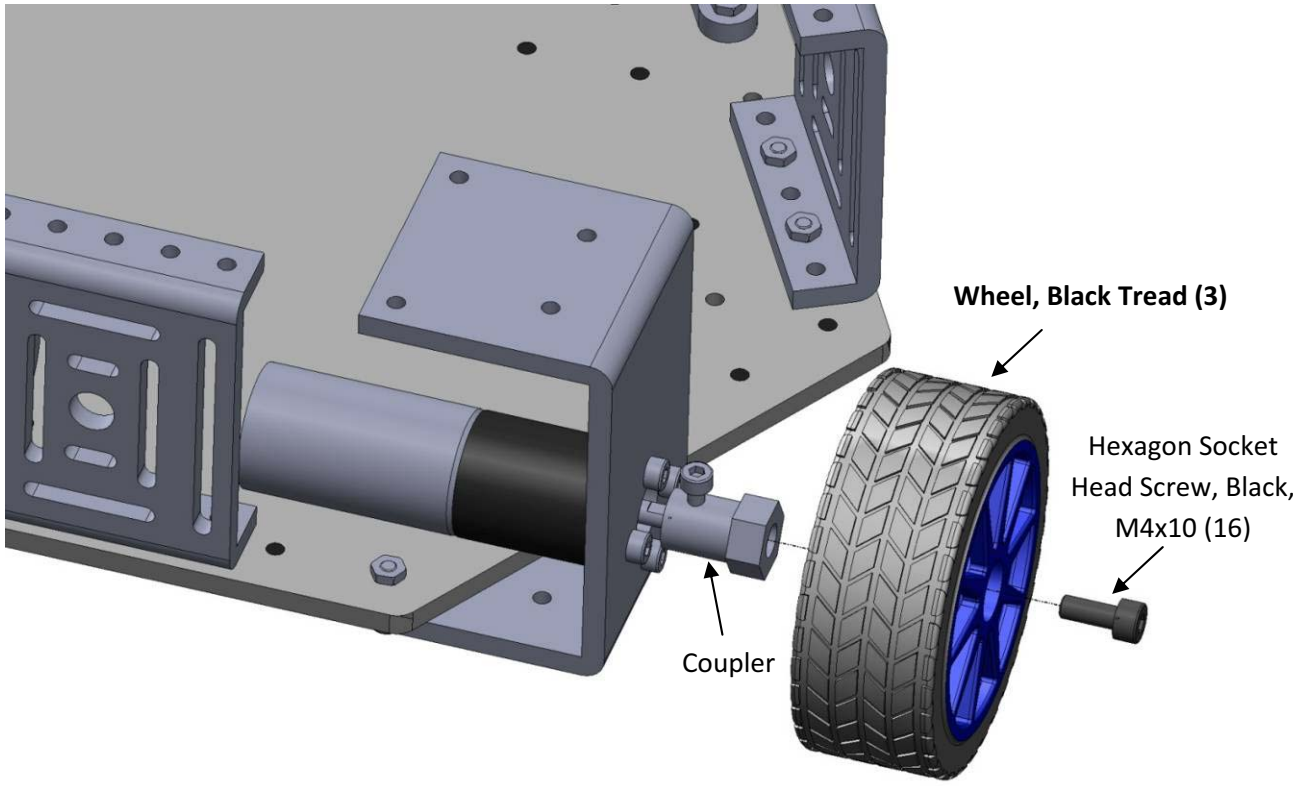
STEP 5: Wheel Installation

Parts Required

Wheel	2PCS
Screw, M4×10	2PCS

Tools Required:

M4 Hex Key (included)



STEP 6: Attaching the Chassis Top Plate

Parts Required

Chassis Top Plate	1PCS
Screw, M3×12	10PCS
Nut, M3	10PCS

Tools Required:

M3 Hex Key (included)