



# Tri-Layer Mini Round Robot Chassis Kit

Created by John O'Brien-Carelli



<https://learn.adafruit.com/tri-layer-mini-round-robot-chassis-kit>

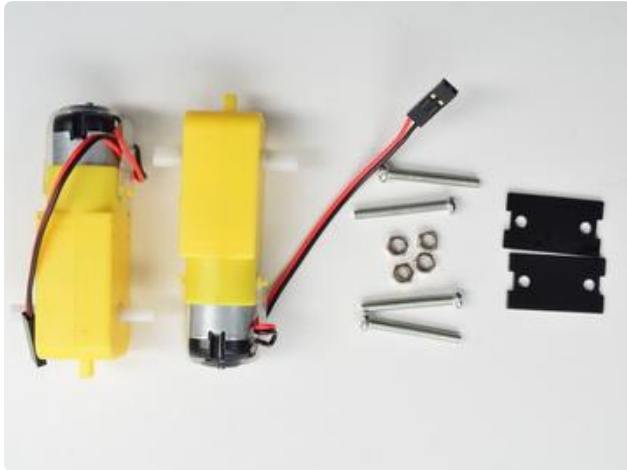
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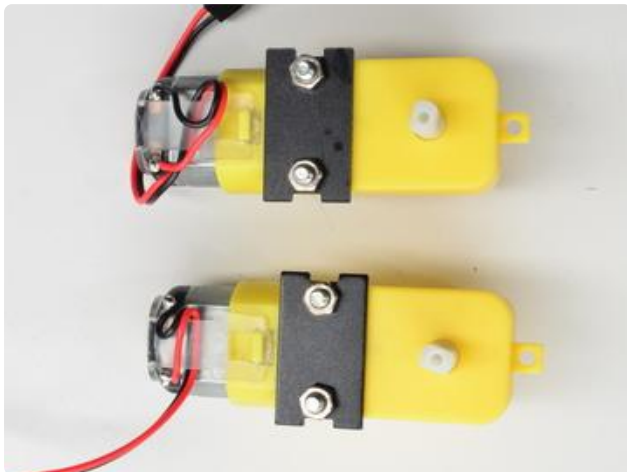
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## Assemble the Wheels



To start, take the two motors, four long screws, four nuts, and two black panels.

Screw the two black panels onto the motors.



Screw the two black panels onto the motors. The metal panels go on the side with the red and black wires coming out

Have the hex nuts on the metal panel side so they dont interfere with the wheel!



Take the two wheels, rubber treads, and 2x small screws found in the same bag as the wheels.



Put the rubber treads on the wheels. This is a lot of fun!

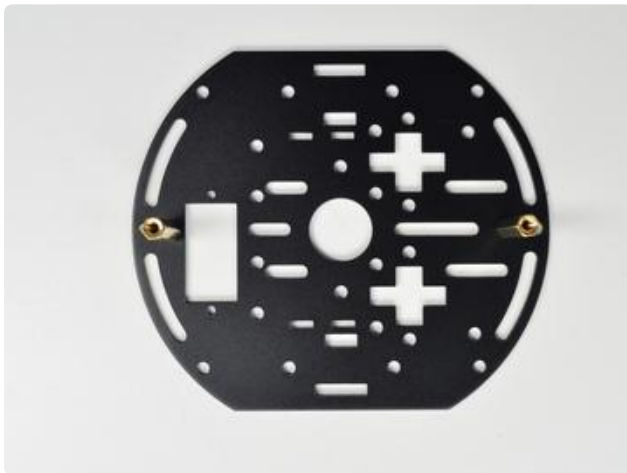
Fit the wheels onto the white knob on the motors, they will snap nicely onto the oval center.

Attach the wheels into place with the tiny screws

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## Assemble the Chassis

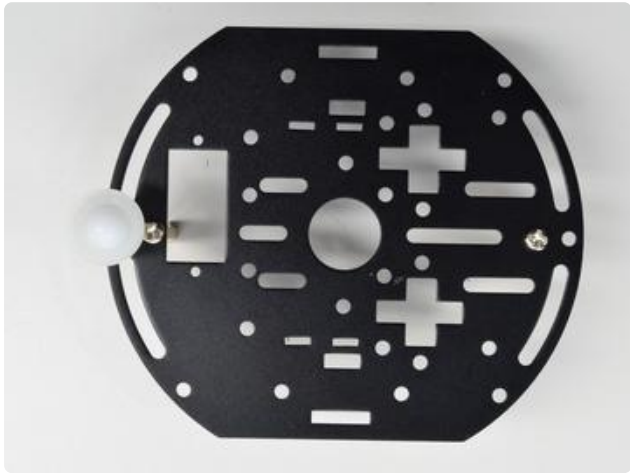
Take one of the black chassis layers. All three layers are identical.



Align it on your table as shown on the left. Note that the panel is not symmetrical - look on the left to see that rectangle cut out? make sure its aligned as you see here!

Attach two of the brass standoffs onto the black chassis layer.

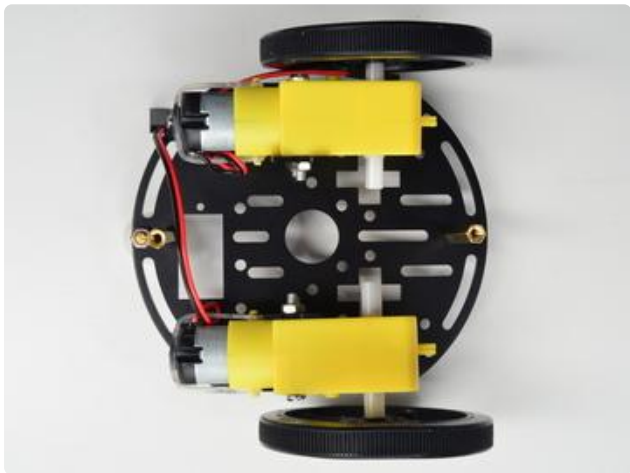
The standoffs should be screwed into the second set of holes from the outer edge - meaning the two interior holes.



Turn over the plate

Attach the white free-wheel into the exterior hole closest to the rectangular opening.

The white free-wheel should be on the opposite side of the chassis of the standoff.

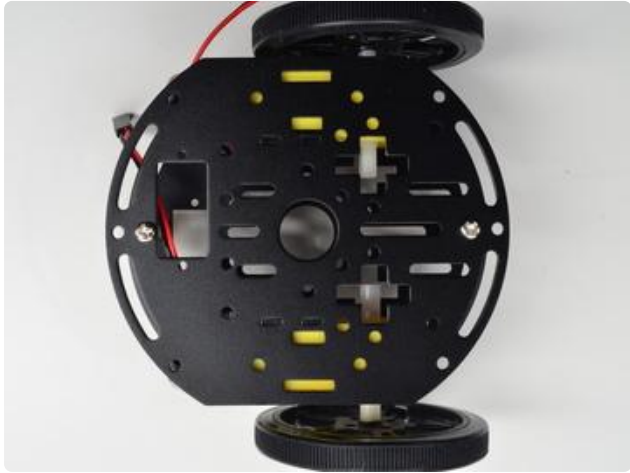


Turn over the plate again

Take your assembled wheels and fit them into the chassis layer.

There are 2 slots on the black panels that you attached to your motor that should fit perfectly into the chassis layer.

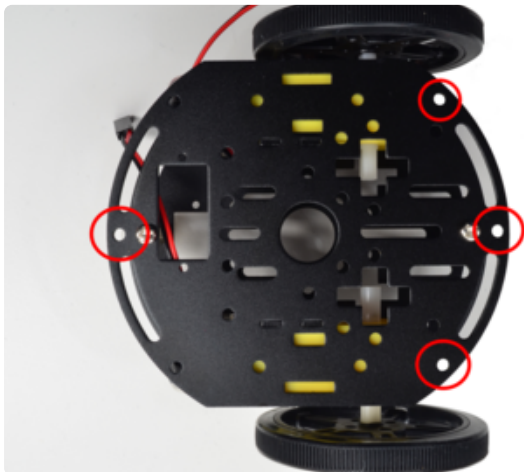
The metal front of the motor will be pointing toward the side of the chassis where you placed your white freewheel



Place the next layer of the chassis on top of the motors. In this photo we didn't line up the second plate just like the first plate (note the off-set rectangle cut out) - this might fit for you or you might have to line them up with the same cutout to get a good fit

The two slots on the black panels you attached to the motors should fit perfectly into the next chassis layer. This sandwiches the motors in place so they can't slip

Screw in the chassis layer by attaching to the brass standoffs



Screw the remaining 2 or 4 standoffs into the second chassis layer.

You can put them just about anywhere as long as you get both sides. The holes circled in red are good candidates.

Click here if you're using the battery pack supplied in the AdaBox tutorial to learn how to finish assembling your tri-layer chassis!



Screw in the last layer of your chassis.

YOU DID IT! Now it's time to add electronics to your little robot friend