

Assembling mBot Neo

A step by step guide to set-up your mBot Neo!



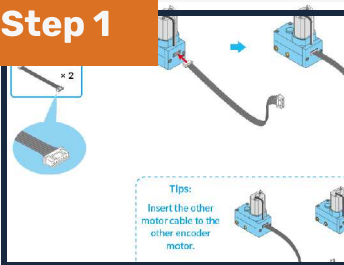
Unboxing



Getting started!

A picture of all pieces, screws bags sorted in order by sizes.

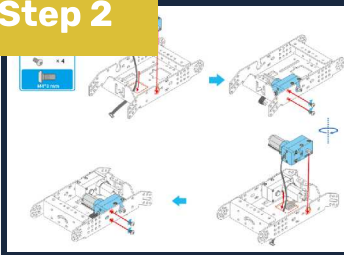
Step 1



Insert the mBuild cables (10 cm) into the Encoder motors'

Insert the smaller end of the six wire cables shown below into the motors. Be sure that the exposed side of the cable tip is facing down. ***Be sure that the exposed side of the cable tip is facing down.***

Step 2



Insert the motors into the Chasis

Insert the motors into the chassis and route the cables through the square opening as shown. Note that the instructions are depicting the installation of BOTH motors. Also, the 8mm screws are the shortest screws in the kit.

Step 3

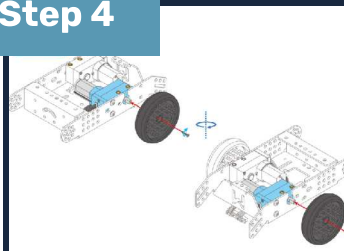


Insert wheel hubs into tires

Insert wheel hubs into tires. One way to check whether the wheel hubs fit well with the slick tires: Check whether you still see the gears of the wheel hub after the assembling.

Yes >> continue to push the hub gears into the slick tires
No >> Done!

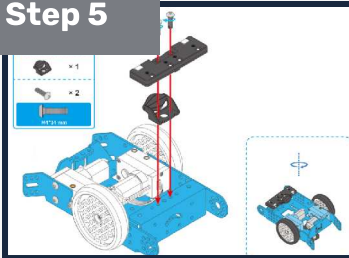
Step 4



Insert the wheels

Install the wheels as shown using the 12mm Phillips head screws. You will need to flip your driver bit to the Phillips side for this process.

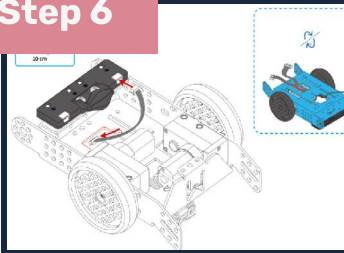
Step 5



Insert the mini wheels

Install the mini wheel and light sensor as shown. Be sure to note the correct orientation of the chassis. Also, the 14mm screws are the medium lengthed screws in the kit. Make sure that the mini-wheel falls on the inside and not outside of the Chasis!

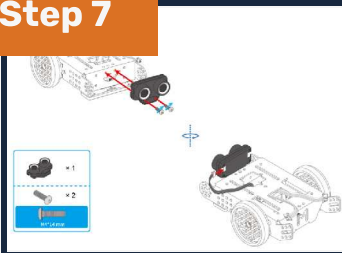
Step 6



Attach the 10cm mbuild cable

Attach the 10cm four wire cable (there are two of these, the long one can be put aside as it will not be used) to the light sensor and route as shown. Note the exposed side of the cable tip should be facing down.

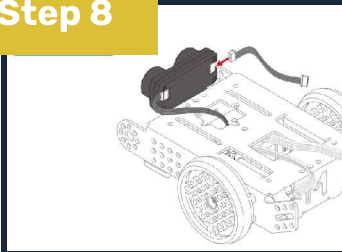
Step 7



Attach the ultrasonic sensor

Attach the ultrasonic sensor as shown. Be sure to note the correct orientation of the chassis. When plugging in the 10cm cable to the ultrasonic sensor the exposed side of the cable tip should face outward toward the front of the chassis.

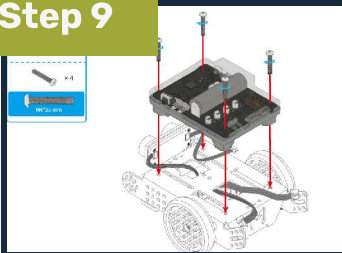
Step 8



Plug the other 10cm cable into the ultrasonic sensor

Plug the other 10cm cable into the ultrasonic sensor. The end going to the ultrasonic sensor is the slightly smaller end and the exposed side should be facing outward like in the previous step.

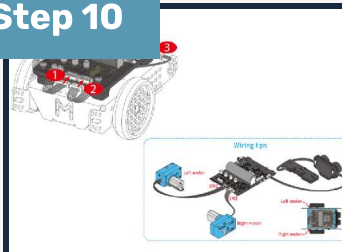
Step 9



Attach the mBot shield

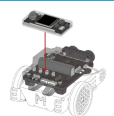
Attach the mBot shield as shown. The 25mm screws are the longest screws in the kit. Make sure the right motor is plugged into the right slot of the shield and the left motor is plugged into the left slot. You can plug them in before screwing the shield down if it helps in keeping track. The exposed end of the cable tip should be facing down.

Step 10



Plug the cable from ultrasonic sensor to the mBot

Plug the 10cm cable extending from the ultrasonic sensor to the mBot shield (number 3 location in the photo). The exposed side of the cable tip should be facing down.



Final Step: Attach the CyberPi controller to the top of the mBot shield