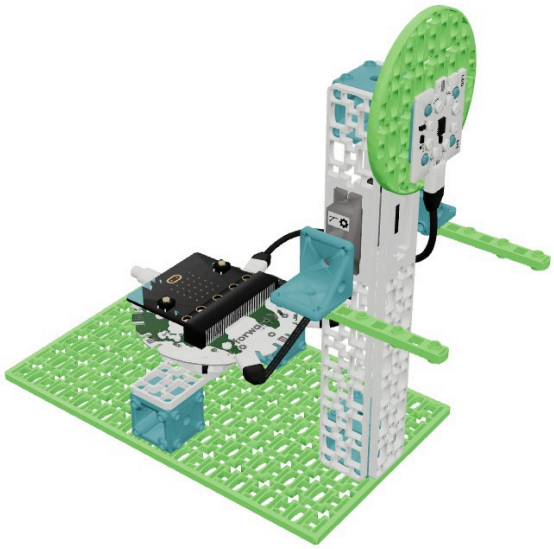
CreateAI Robot Friend

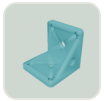
22 steps · 24 parts

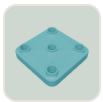


You will need


1 × Base Plate


4 × Cube Connector


2 × Corner Connector


1 × Back-to-Back Connector


1 × Medium Frame


3 × Long Frame

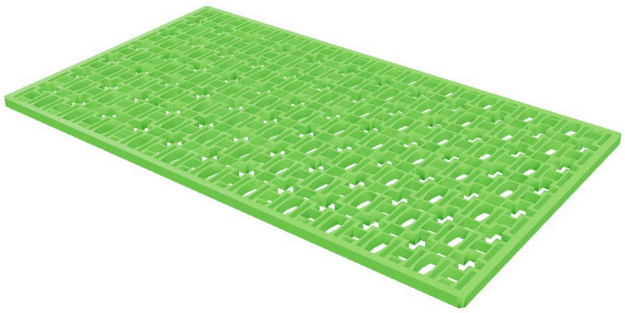

2 × Thin Frame


1 × Circle


1 × Continuous Servo Motor


1 × Positional Servo Motor


1 × LED Light

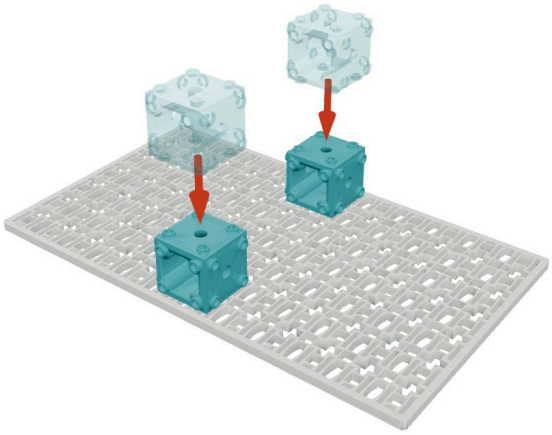


1

Start with a Base Plate



1 × Base Plate

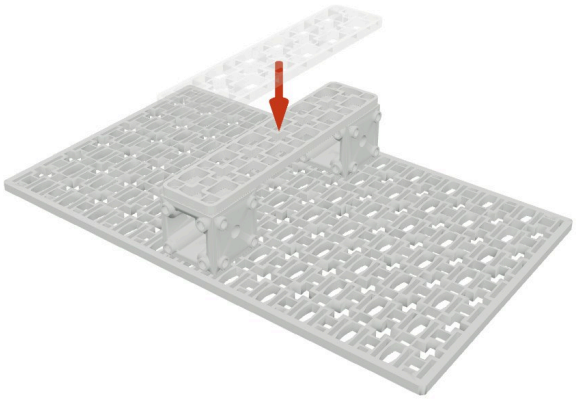


2

Attach two Cube Connectors on either long edge of the Base Plate.



2 × Cube Connector



3

Attach a Medium Frame across the top of the two Cube Connectors

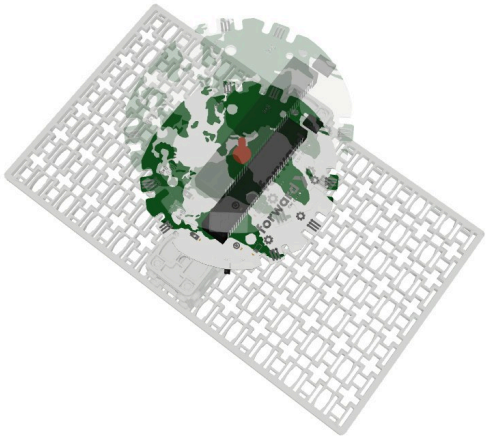


1 × Medium Frame

4

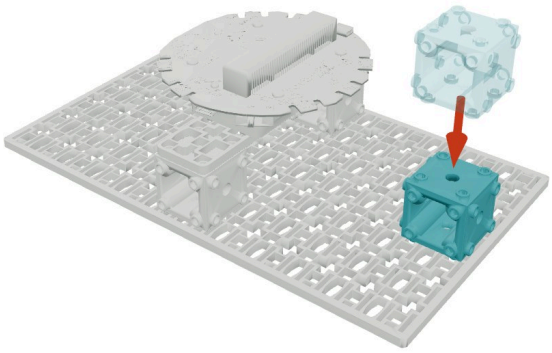
Look at your build from above

Attach the Breakout Board across the top of the Medium Frame.





1 × Breakout Board (empty)



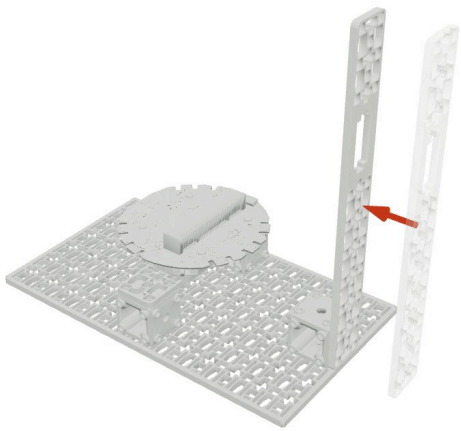
5

Look at your build from the side again

Attach one Cube Connector along the short edge of the Base Plate (it should be on the same side as the Motor ports on the Breakout Board).



1 × Cube Connector

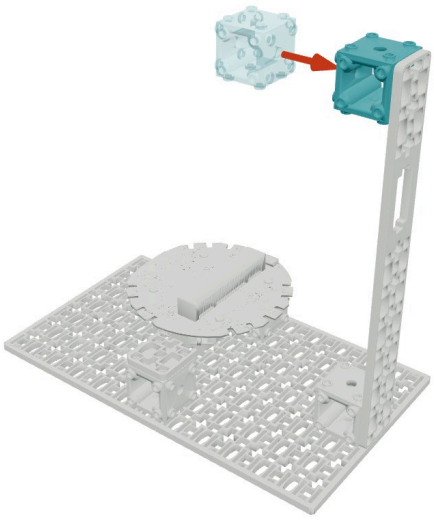


6

Stand up a Long Frame and attach it to the outside of the Cube Connector.



1 × Long Frame

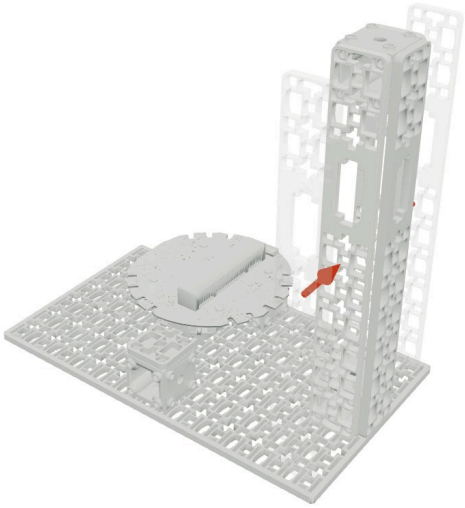


7

Attach another Cube Connector to the top of the Long Frame, facing inward.



1 × Cube Connector

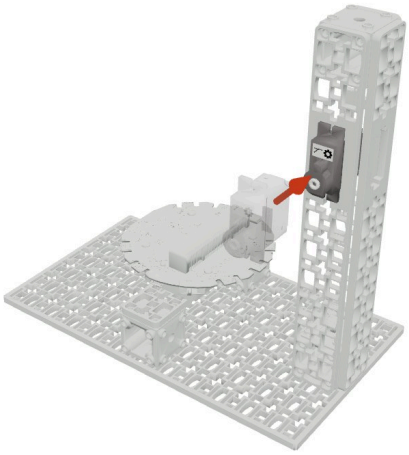


8

Attach two Long Frames to the two outsides of this assembly. The position of the Servo motor holes should both be at the top.

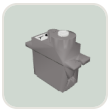


2 × Long Frame

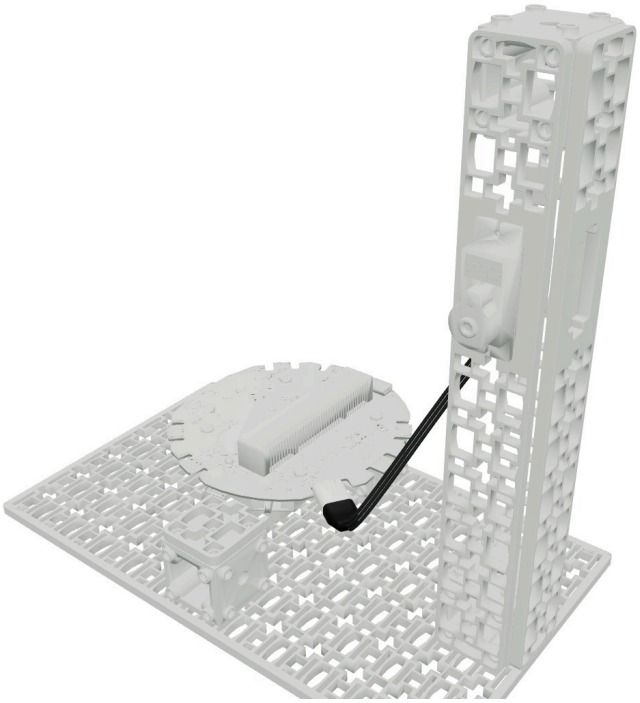


9

Thread the Position Servo Motor cable through Servo hole in the Long Frame first, then slot the Servo Motor in place



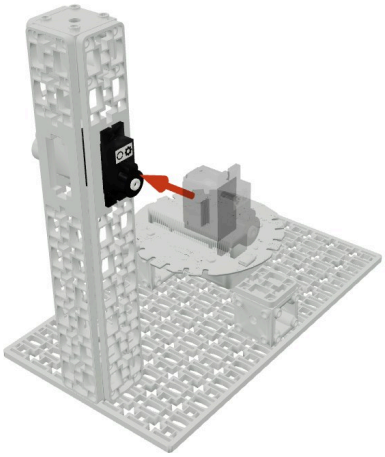
1 × Positional Servo Motor



10

🔌 Plug the Servo Motor cable into the 'R' (right) motor port on the Breakout Board.

90°



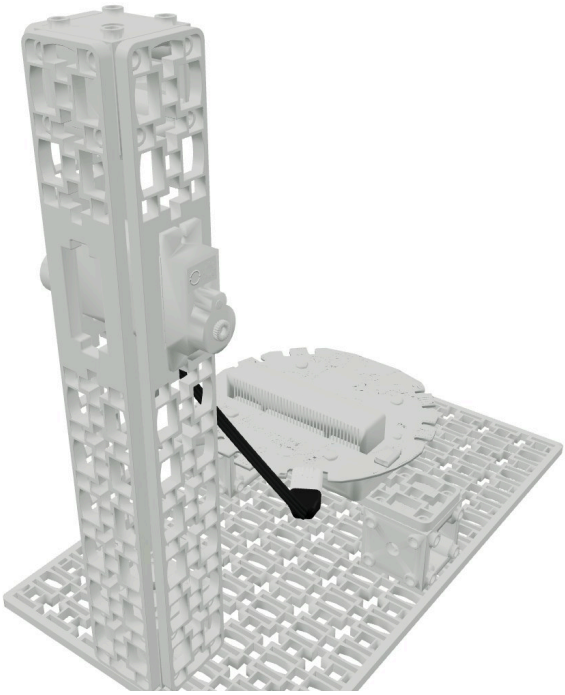
11

Turn your build a quarter turn clockwise

Thread the Continuous Servo Motor cable through Servo hole in the Long Frame first, then slot the Servo Motor in place

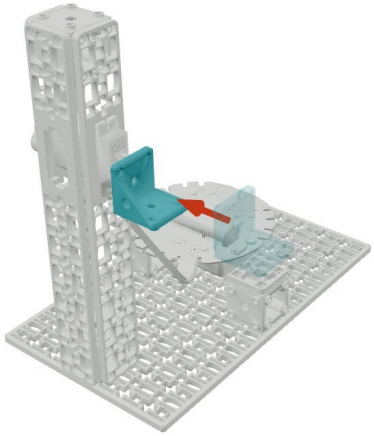


1 × Continuous Servo Motor



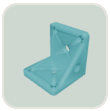
12

🔌 Plug the Servo Motor cable into the 'L' (left) motor port on the Breakout Board.



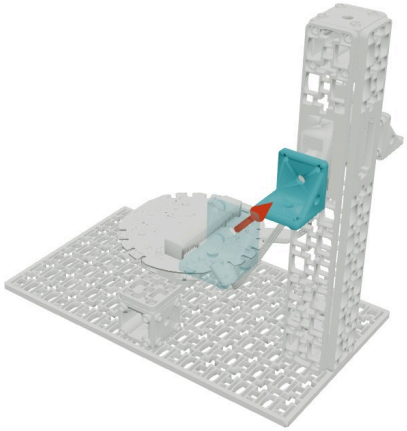
13

Attach a Corner Connector block onto the axle of the Servo Motor.



1 × Corner Connector

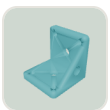
90°



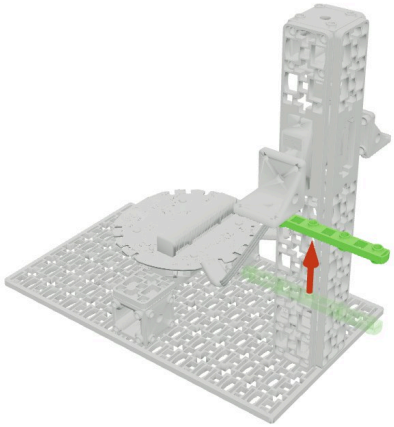
14

Turn your build a quarter turn anticlockwise

Repeat on the other Servo Motor.



1 × Corner Connector



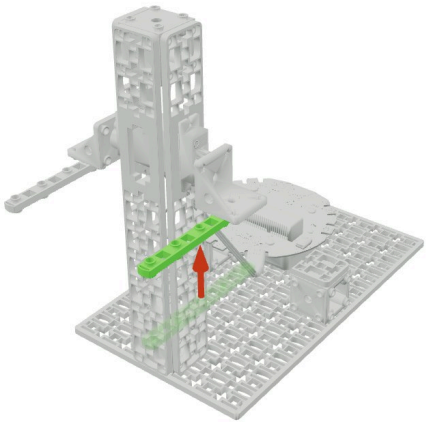
15

Attach a Thin Frame piece to the other flat side of the other Corner Connector to create another arm for the robot.



1 × Thin Frame

90°



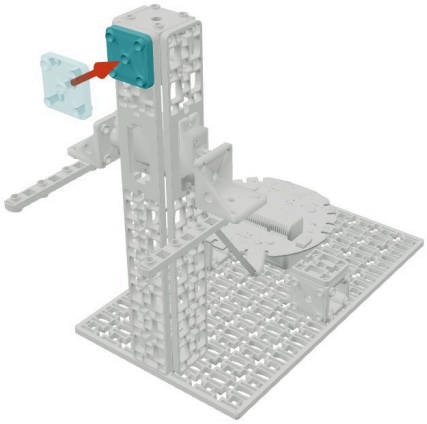
16

Turn your build a quarter turn clockwise

Attach a Thin Frame piece to the other flat side of the Corner Connector to create an arm for the robot.



1 × Thin Frame

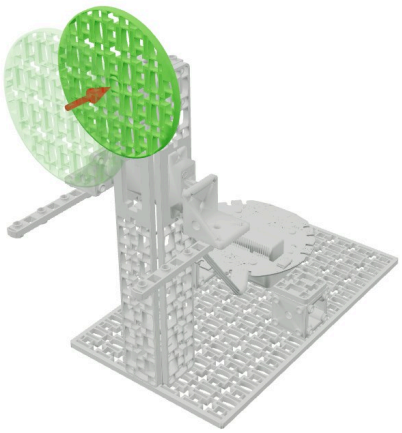


17

Attach a Back-to-Back Connector to the top of the front Long Frame.



1 × Back-to-Back Connector



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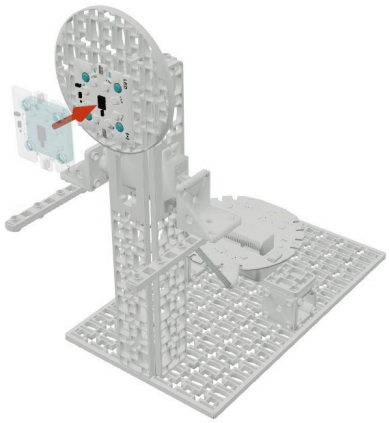
Attach a Circle piece to that Back-to-Back Connector.



1 × Circle

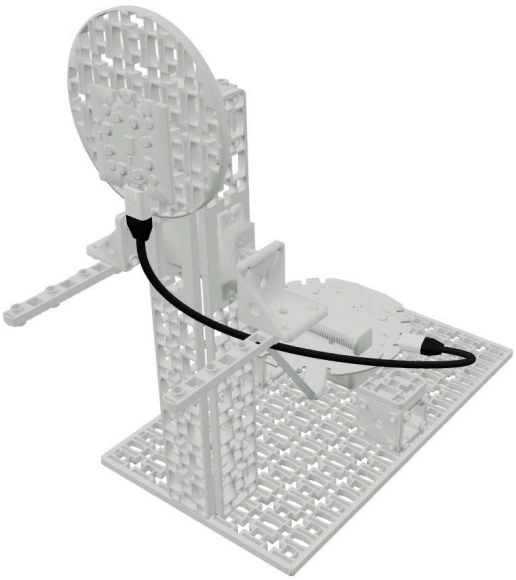


19

Attach the LED Light component to the Circle piece.



1 × LED Light



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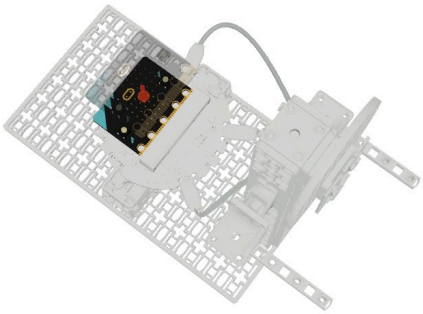
🔌 Use a Long Cable to connect the LED Light to a Sensor port on the Breakout Board.



1 × Long Cable Connector



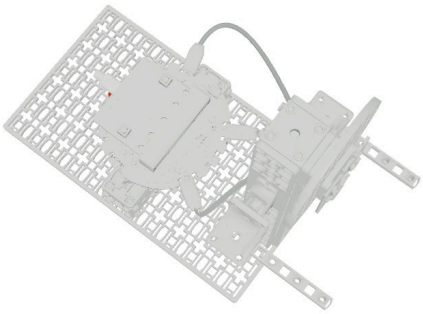
21

Look at your build from above

Insert a micro:bit into the edge connector on the Breakout Board.



1 × micro:bit



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Insert the microUSB cable into the micro:bit and connect the other end to your computer.



1 × Micro USB Cable