

# MARTY THE ROBOT

—— Build Guide ——

# SCREW GUIDE

When you see an icon like this  use the **SCREW GUIDE** below to select the correct screw.

**A**

Size Guide



Body Screw

**C**

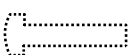
Size Guide



Shoulder Screw

**B**

Size Guide



Arm Screw

**D**

Size Guide



Motor Eye Screw

# WHERE TO START!

**Robot Kit** - Step 1

**Partly-assembled Kit** - Step 18

**Assembled Robot** - Ready to Code

## TOP TIPS

Get help from an adult if you're under 14.

Pay attention to the part orientation.

Try not to trap or squish the cables.

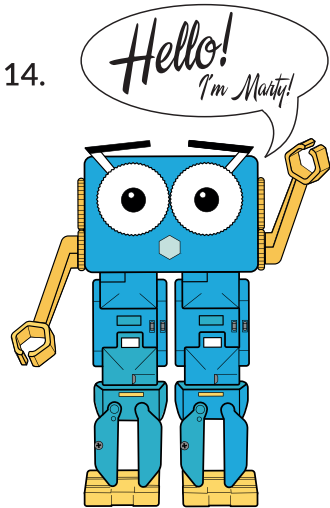
Check you have all the parts.

Be gentle with the motors.

Do the steps in order.

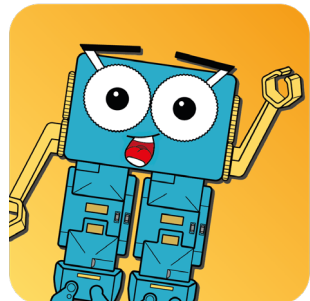
Have fun!

**Top Tip:** Use the Marty App for extra help including videos & support.



## MARTY THE ROBOT APP

Before you get started with the build, download the **Marty the Robot** mobile and tablet app to get access to build videos and support along with a step-by-step guide to setting up your Marty.



1-L

LEFT LEG

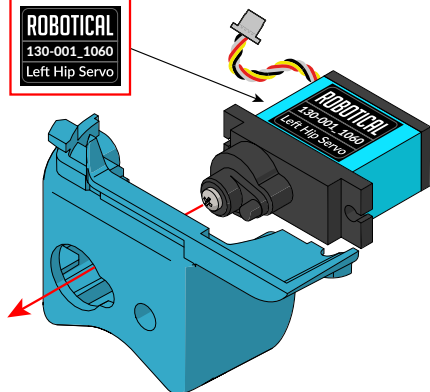


x 1

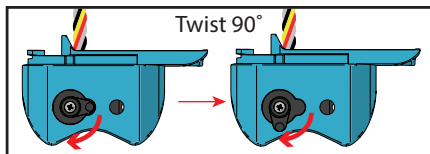


x 1

ROBOTICAL  
130-001\_1060  
Left Hip Servo



Twist 90°



1-R

RIGHT LEG

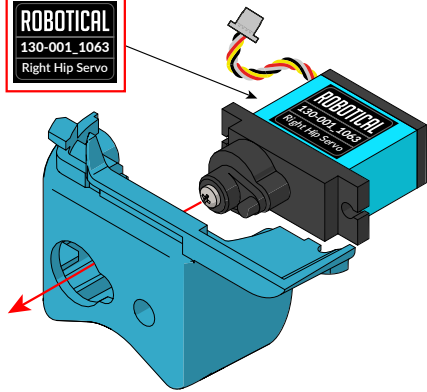


x 1

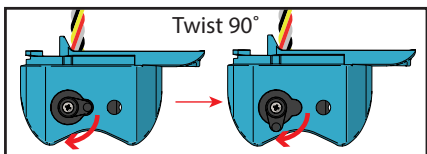


x 1

ROBOTICAL  
130-001\_1063  
Right Hip Servo



Twist 90°



2-L

LEFT LEG

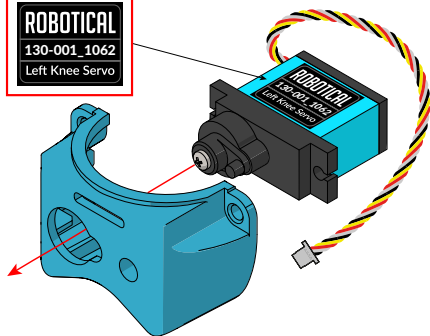


x 1

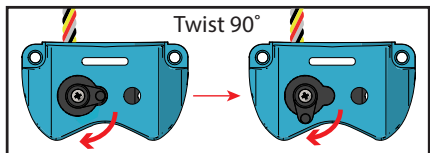


x 1

ROBOTICAL  
130-001\_1062  
Left Knee Servo



Twist 90°



2-R

RIGHT LEG

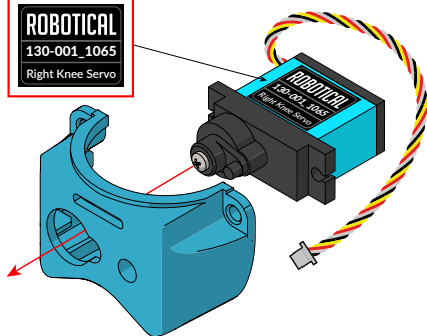


x 1

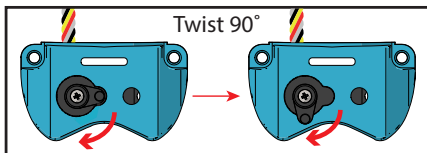


x 1

ROBOTICAL  
130-001\_1065  
Right Knee Servo

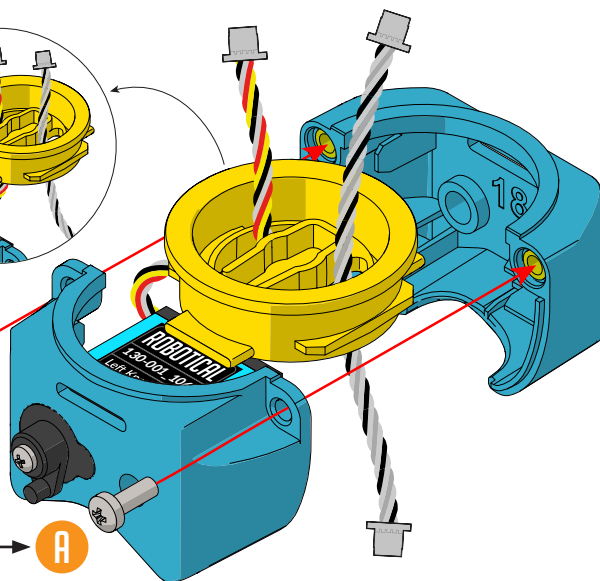


Twist 90°



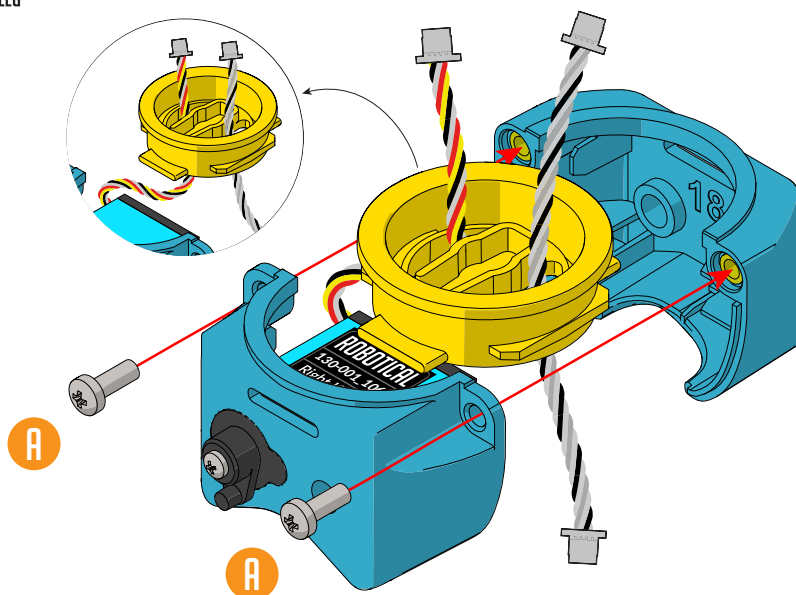


LEFT LEG

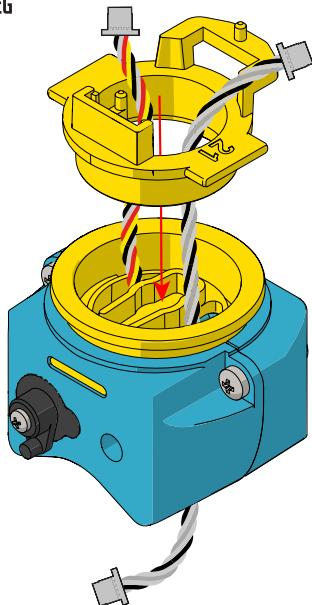


Refer to the  
**SCREW GUIDE**  
on first page

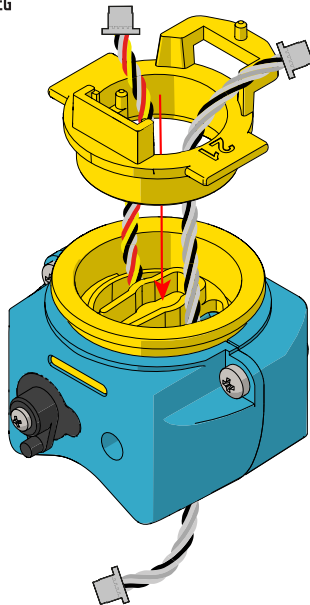
RIGHT LEG



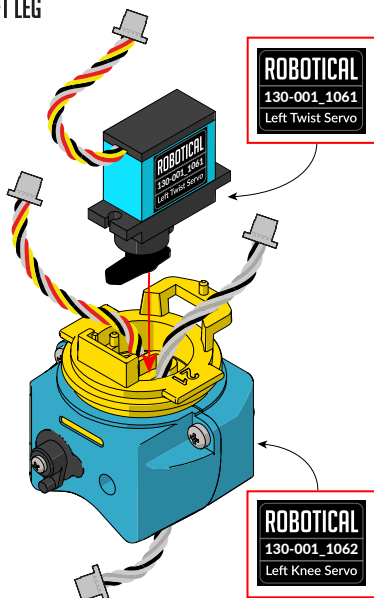
**4-L**  
LEFT LEG



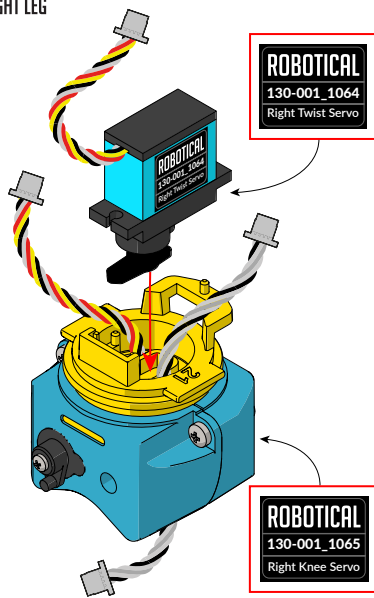
**4-R**  
RIGHT LEG



**5-L**  
LEFT LEG



**5-R**  
RIGHT LEG



6-L

LEFT LEG



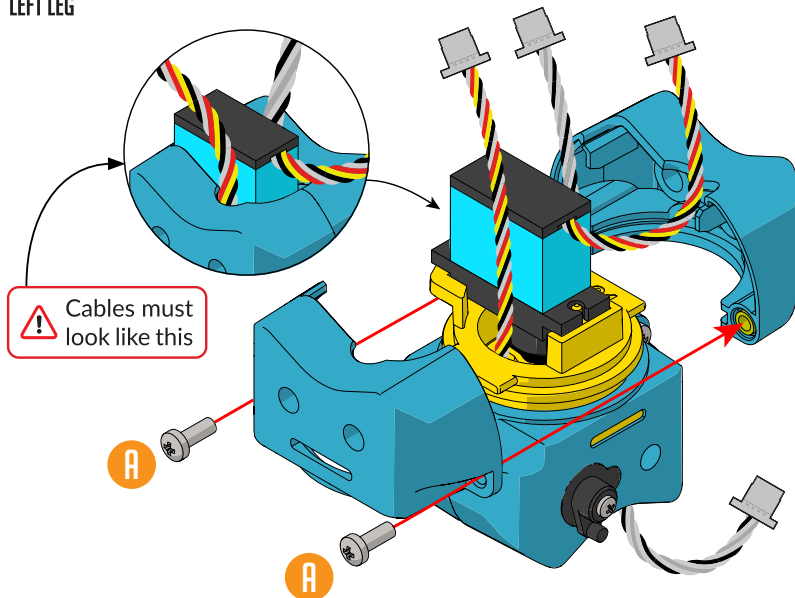
x 1



x 1



x 1



6-R

RIGHT LEG



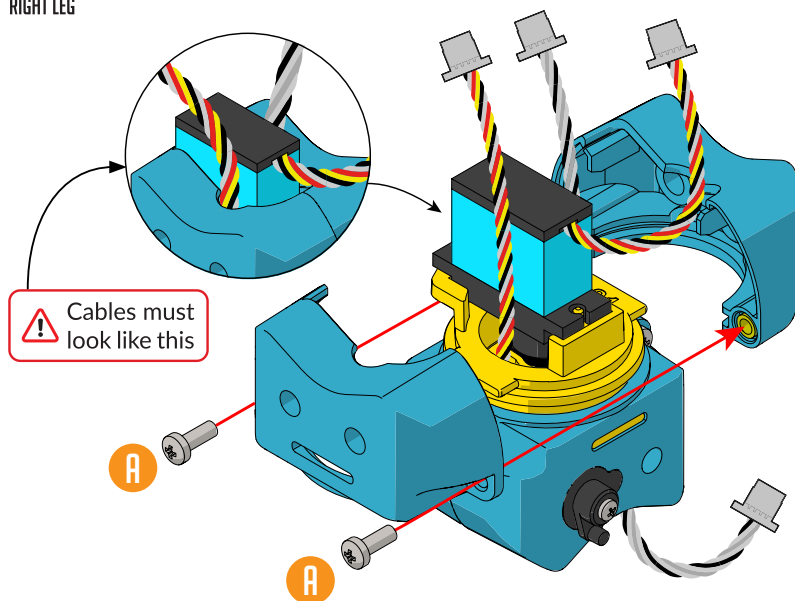
x 1



x 1

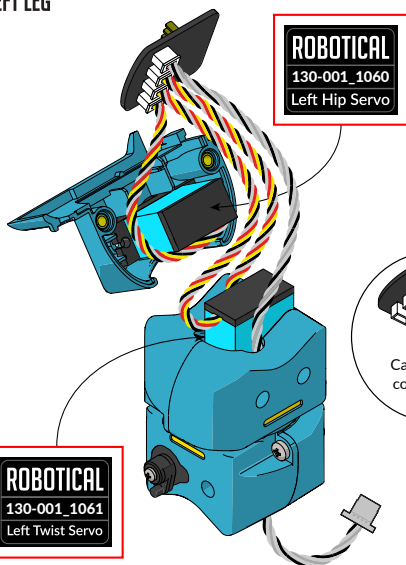
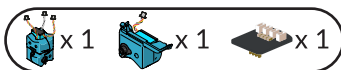


x 1



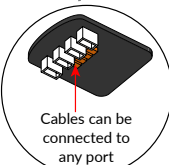
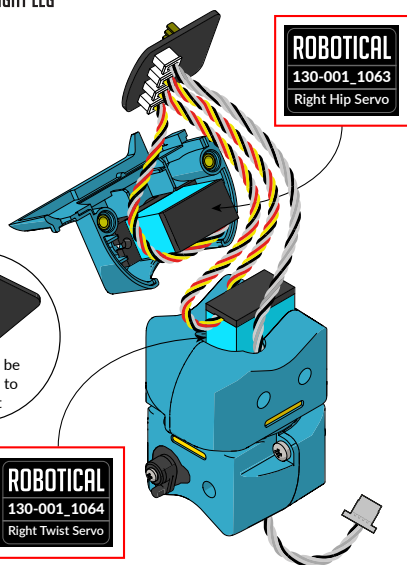
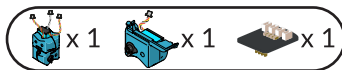
# 7-L

LEFT LEG



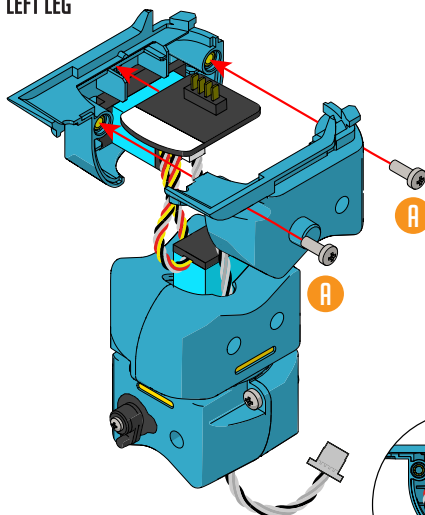
# 7-R

RIGHT LEG



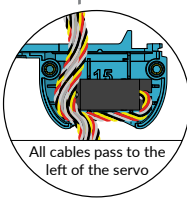
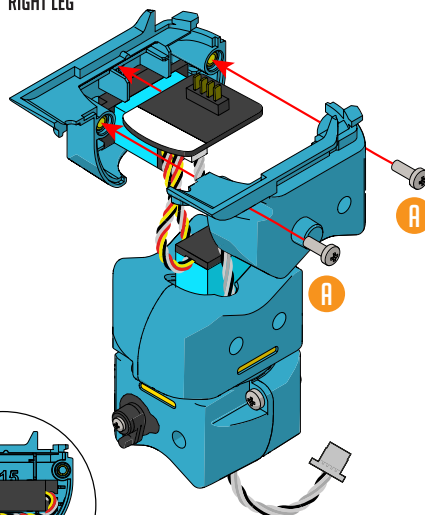
# 8-L

LEFT LEG



# 8-R

RIGHT LEG



9-L

LEFT LEG



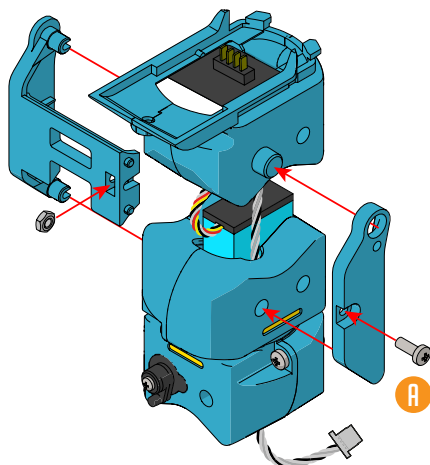
x 1



x 1



x 1



9-R

RIGHT LEG



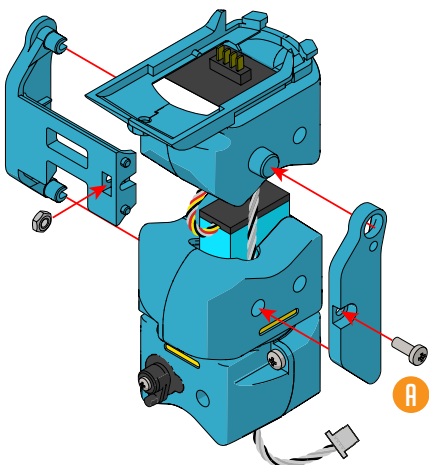
x 1



x 1



x 1



10-L

LEFT LEG



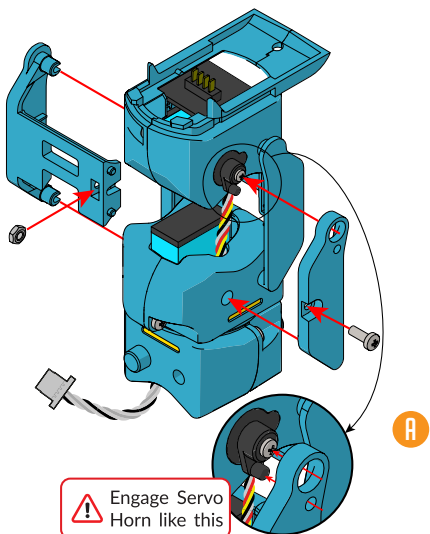
x 1



x 1



x 1



Engage Servo  
Horn like this

10-R

RIGHT LEG



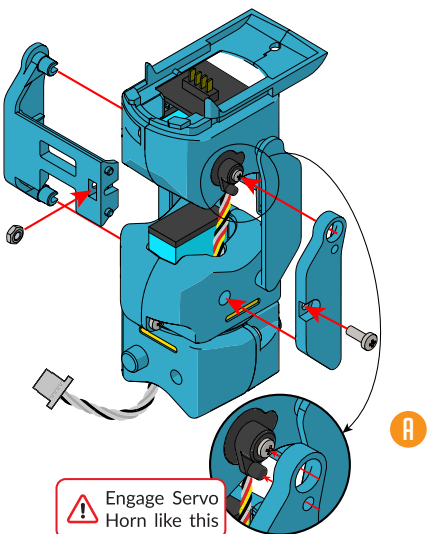
x 1



x 1



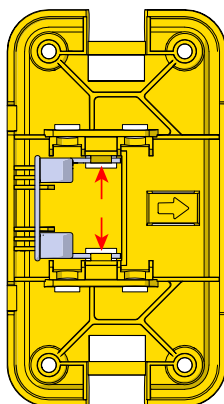
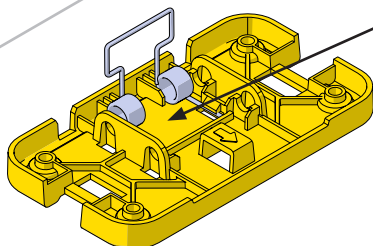
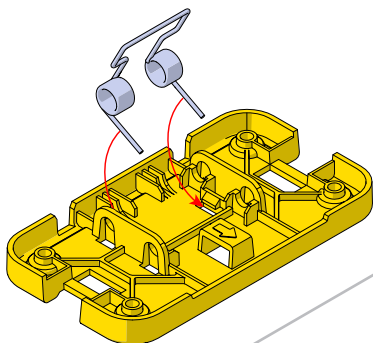


x 1



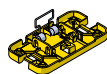
Engage Servo  
Horn like this

11

 x 2
  x 2


After assembly,  
secure the spring  
legs under the lips.

Build 2 feet

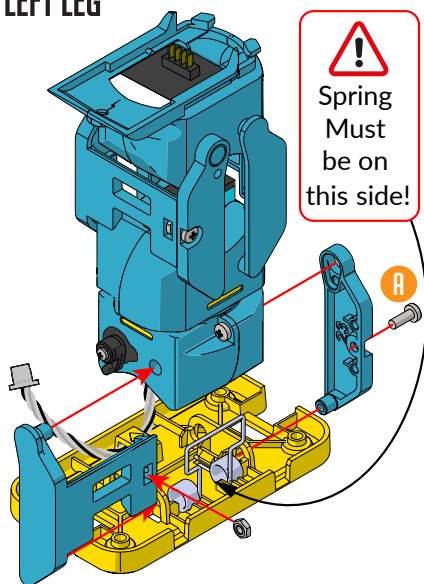


12

LEFT LEG




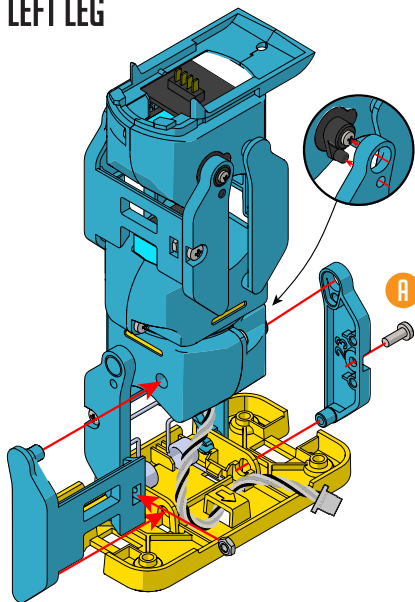
 x 1
  x 1
  x 1
  x 1

  
Spring  
Must  
be on  
this side!



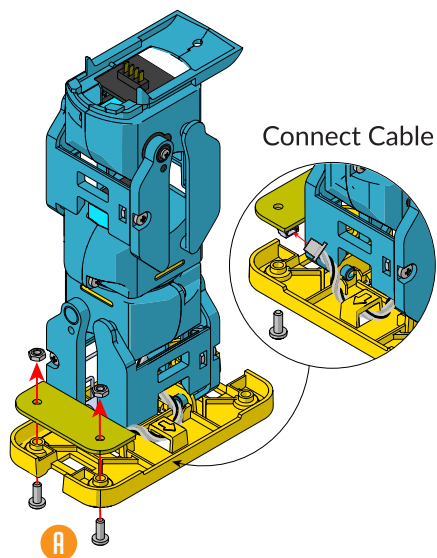
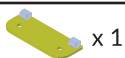
13

LEFT LEG

 x 1
  x 1
  x 1


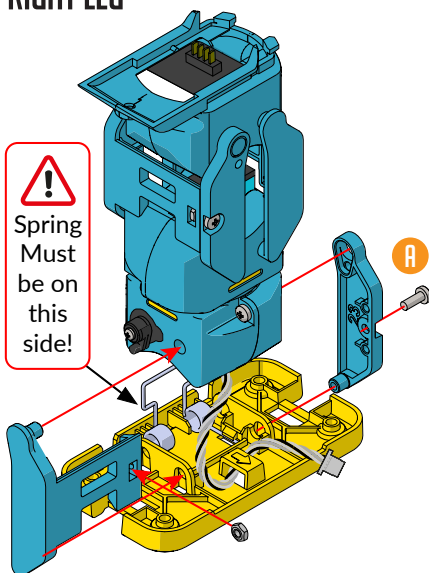
14

LEFT LEG



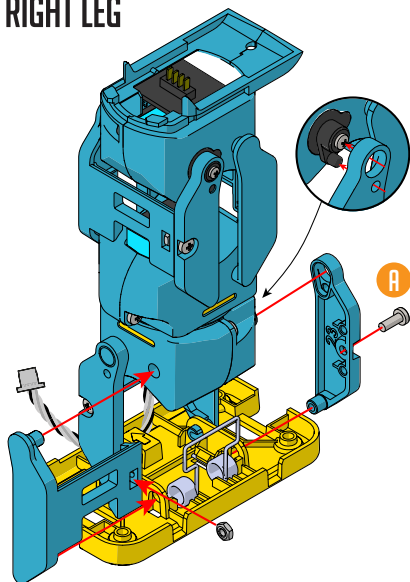
15

RIGHT LEG



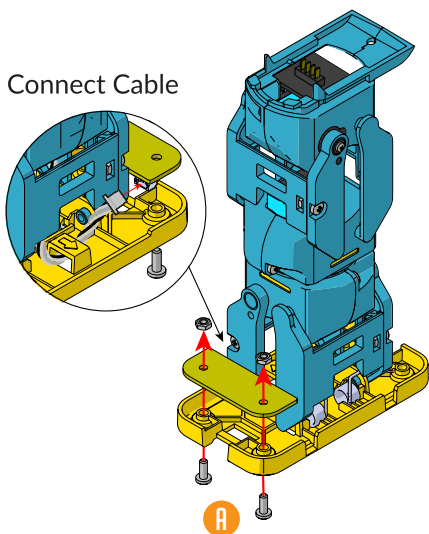
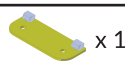
16

RIGHT LEG



17

RIGHT LEG



# HAVE A PART-ASSEMBLED KIT? START FROM HERE!

18-L

LEFT ARM

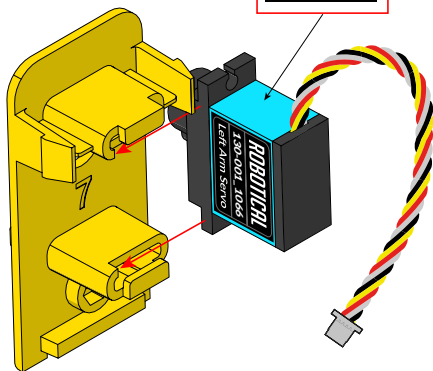


x 1



x 1

**ROBOTICAL**  
130-001\_1066  
Left Arm Servo



18-R

RIGHT ARM

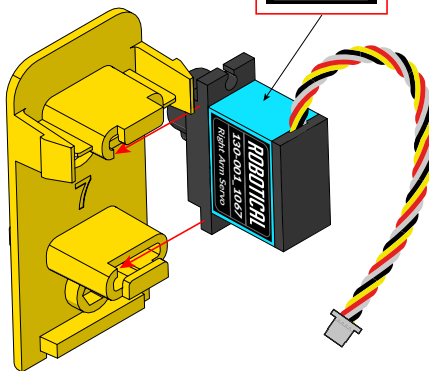


x 1



x 1

**ROBOTICAL**  
130-001\_1067  
Right Arm Servo



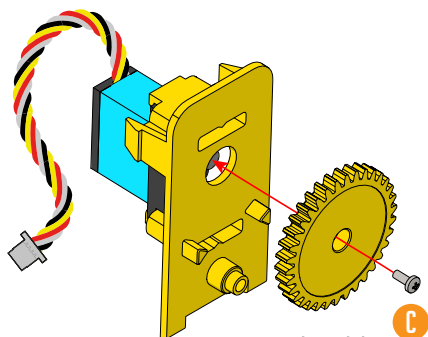
19



x 2



x 2



Refer to the  
**SCREW GUIDE**  
on first page

20



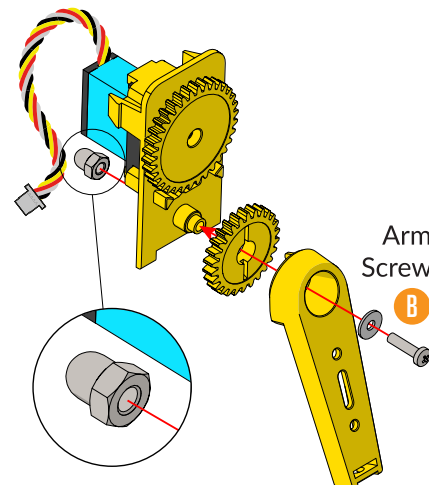
x 2



x 2



x 2



Build both arms



Build both arms





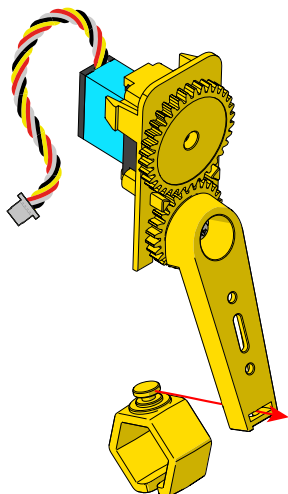
21



x 2



x 2



Build both arms



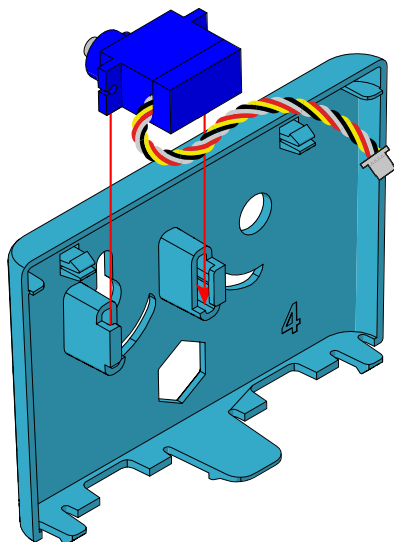
22



x 1



x 1



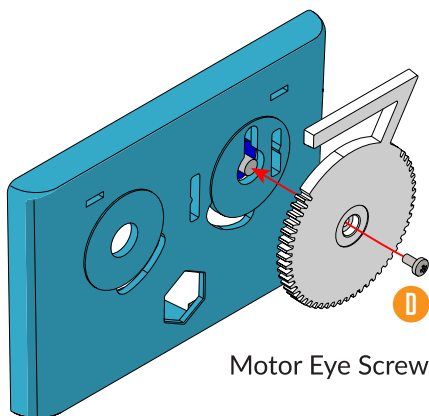
23



x 1



x 1



Motor Eye Screw

24



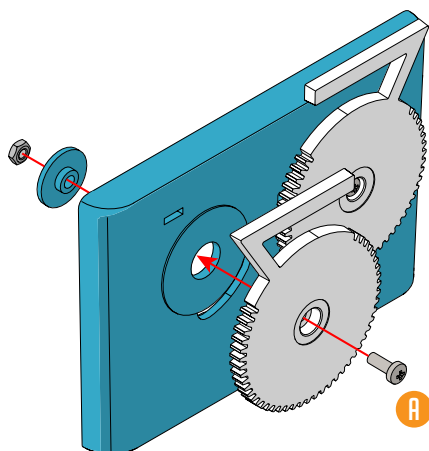
x 1





x 1

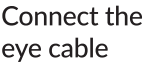


x 1



Body Screw

25  x 1  x 1

  $\times 1$ 

Push on the locations illustrated,  
to clip Marty's Face onto the Body.

26



x 1

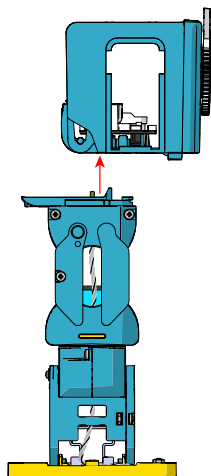


x 2

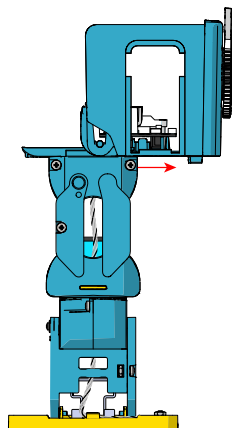
ATTACH **RIGHT** LEG TO THE BODY



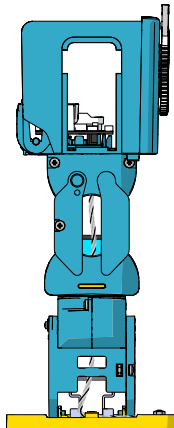
Attached the leg as illustrated below. Pay attention to the position of the cable to highlight orientation.



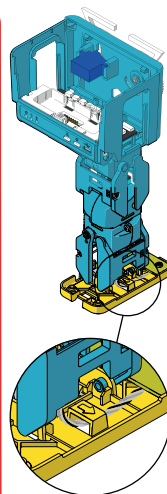
Step 1



Step 2



Step 3



27



x 1

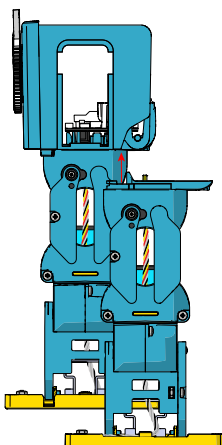


x 1

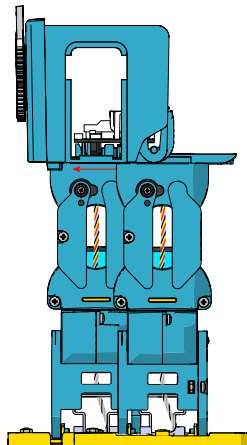
ATTACH **LEFT** LEG TO THE BODY



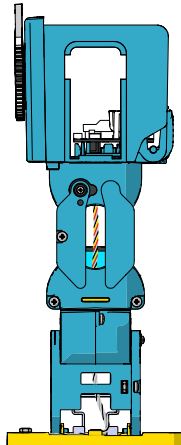
Attached the leg as illustrated below. Pay attention to the position of the cable to highlight orientation.



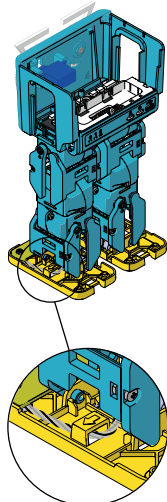
Step 1



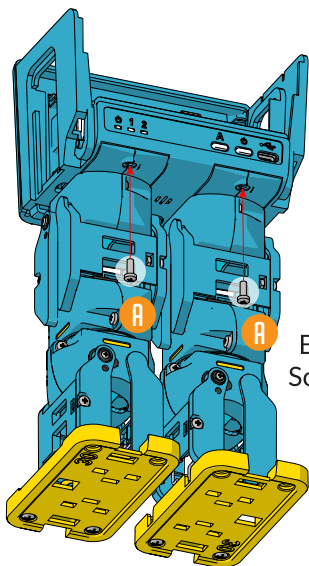
Step 2



Step 3



28

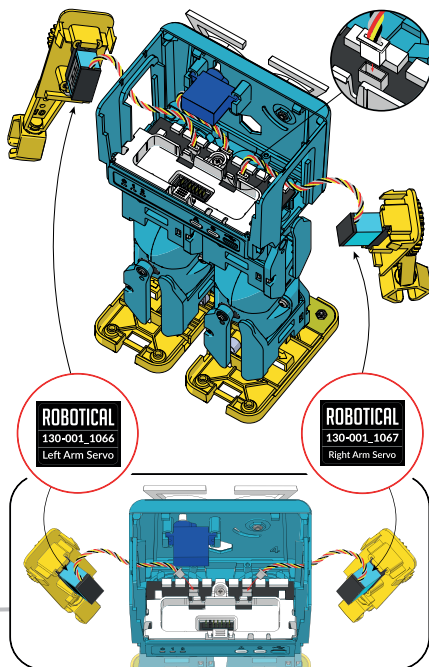


Body  
Screw

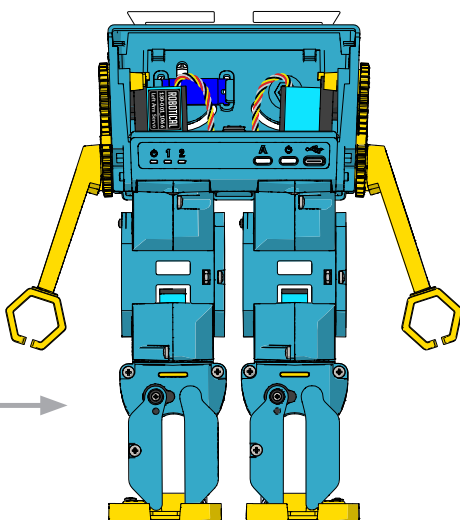
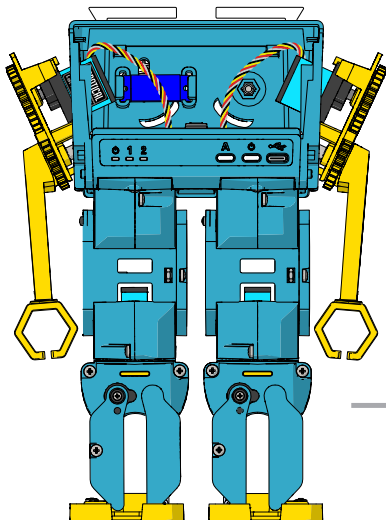
29



CONNECT THE ARM CABLES



Clip the arms into the body



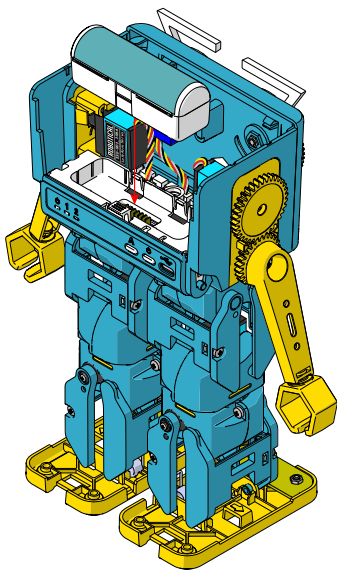
30



x 1



x 1



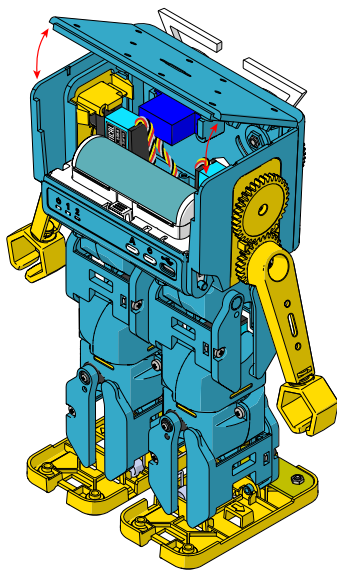
31



x 1



x 1



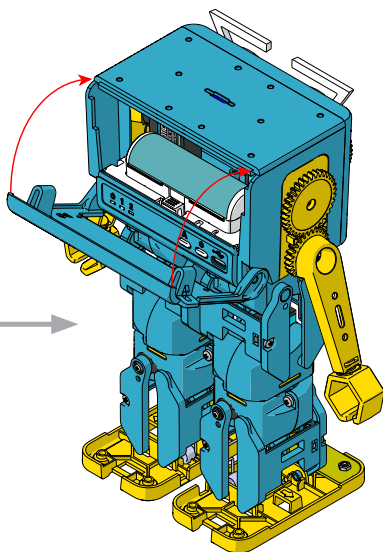
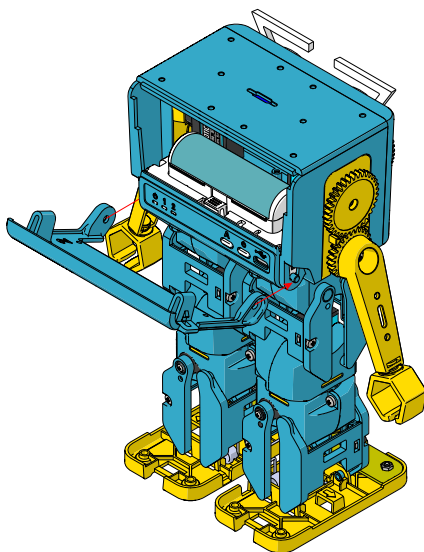
32



x 1



x 1

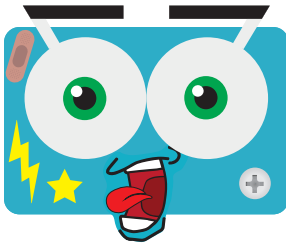
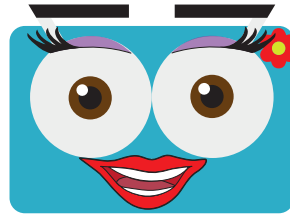
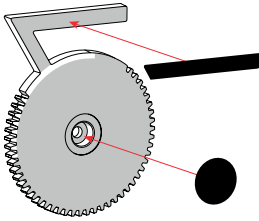


33



x 1 Sticker Sheet

Personalise your Marty!

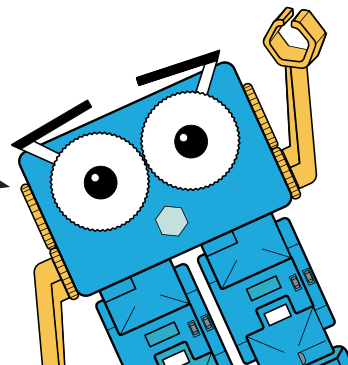


## NEXT STEPS

You have now finished building your Marty

To set-up your Marty and start coding, download the Marty the Robot App and follow the on screen instructions

Great  
Job!



# PROGRAMMING MARTY

Use and interact with Marty on multiple platforms, with several different programming languages. Go to [robotical.io](https://robotical.io) for support on the following:

## Scratch

The simplest way to begin programming your Marty. Combine blocks to build a program to get your Marty up and about.



Python is a more advanced programming language you can use to control Marty and develop more complex programs.



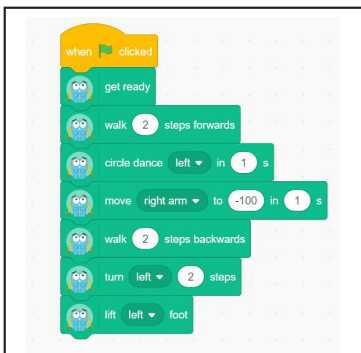
You can use JavaScript on a web-page to communicate with Marty over a web-socket using the JavaScript API.

## Raspberry Pi

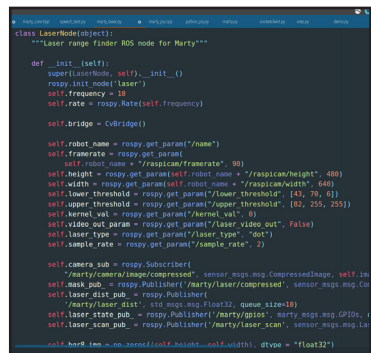
With a Raspberry Pi you can expand your Marty's functionality through the addition of advanced sensors and tools.

## ROS

ROS, the Robot Operating System is an amazing set of advanced robotics tools used by industry and academia.



Scratch  
(Beginner)



python  
(Intermediate)

