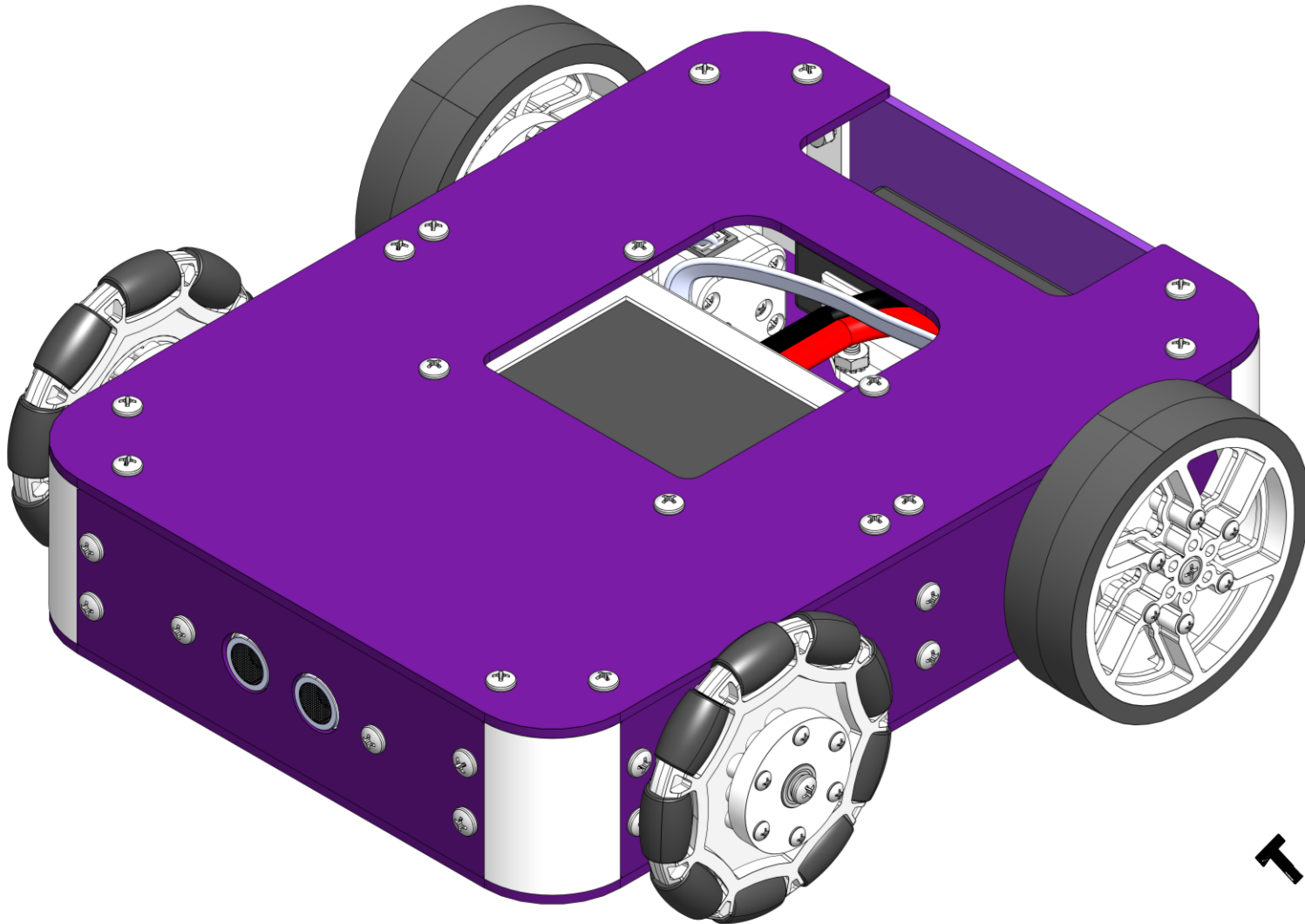
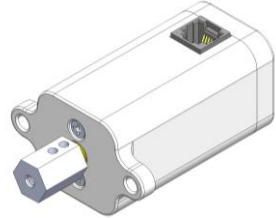
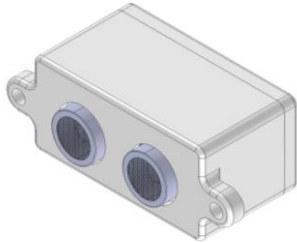
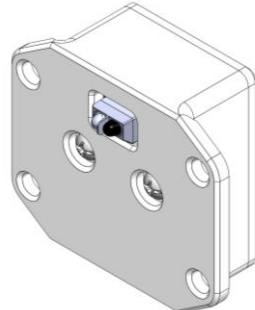

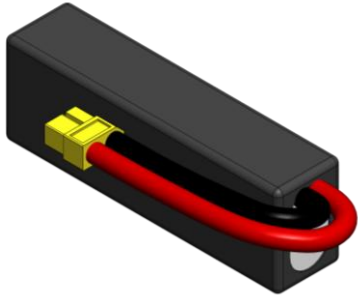







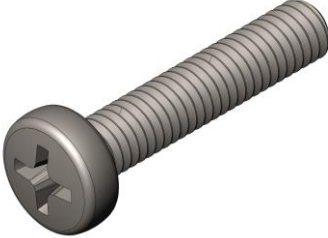
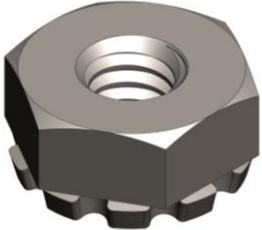
# ASSEMBLY INSTRUCTIONS: AXLE

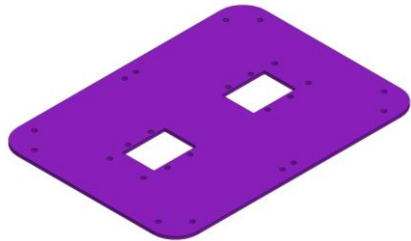
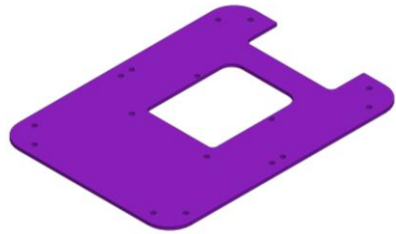





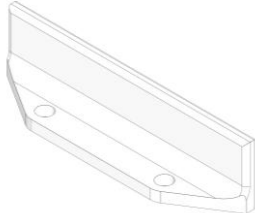

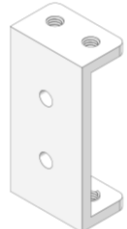


1	CONTROLLER [C]	
2	USB C CORD [USBC]	
3	GAME CONTROLLER [GC]	
4	USBB [USBB]	

5	MOTOR [M]	
6	ULTRASONIC SENSOR [US]	
7	LIGHT SENSOR [LS]	
8	WIRE [WR]	

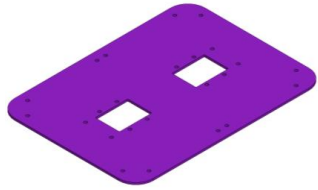
9	BATTERY [B]	
10	BATTERY CHARGER [BC]	
11	SCREWDRIVER [SD]	
12	OPEN WRENCH [OW]	

13	STANDOFF [S0]	
14	8-32 0.5" PHILIPS SCREW [S1]	
15	M4 SCREW 20MM [S2]	
16	8-32 STAR NUT [N1]	

17	<b>BOTTOM PLATE [BTP]</b>	
18	<b>TOP PLATE [TP]</b>	
19	<b>FRONT PLATE [FP]</b>	
20	<b>BACK PLATE [BP]</b>	
21	<b>SIDE PLATE [SP]</b>	

22	BATTERY HOLDER [BH]	
23	CORNER MOUNT [CM]	
24	SIDE MOUNT [SM]	
25	TRACTION WHEEL [TTW]	
26	OMNI WHEEL [OMW]	

[BTP]



x1

[CM]



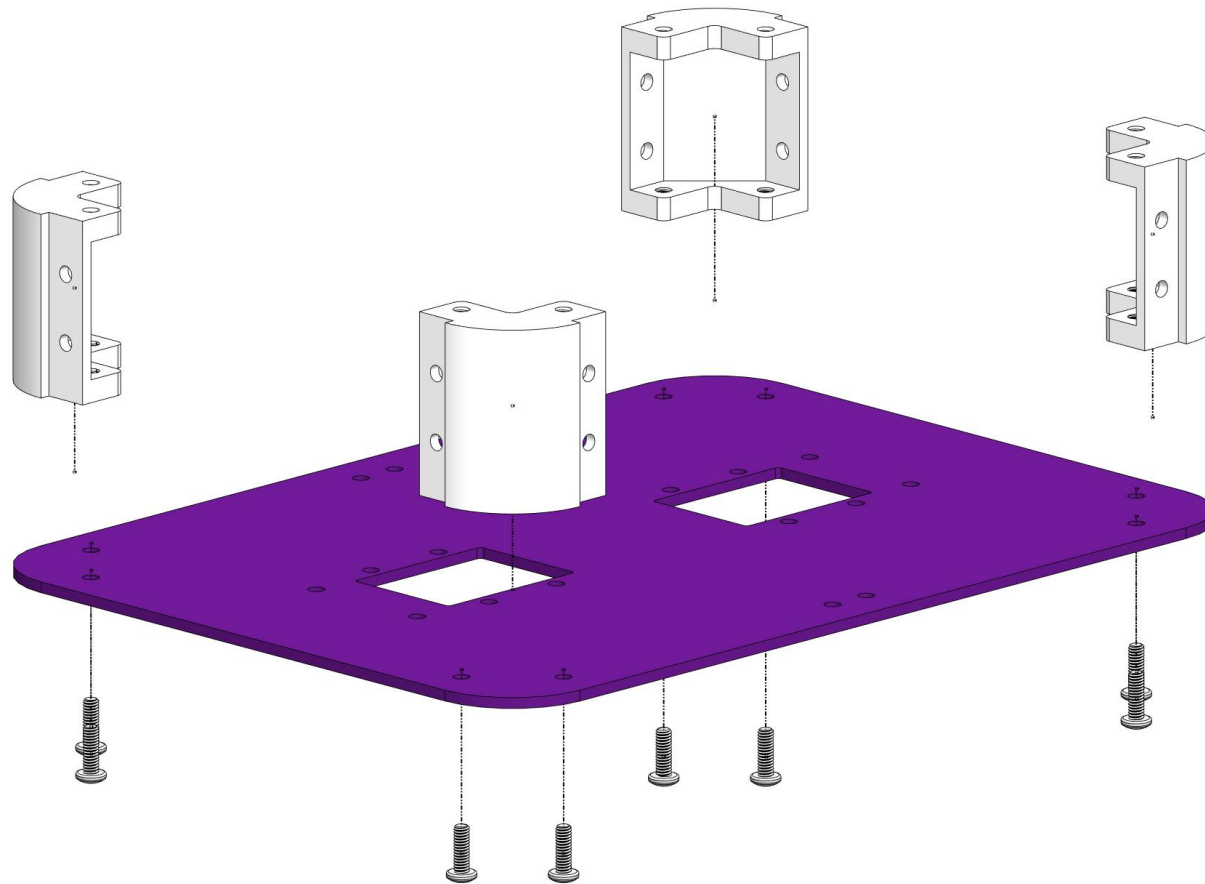
x4

[S1]



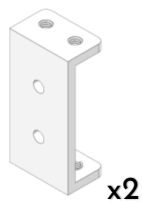
x8

1





[SM]



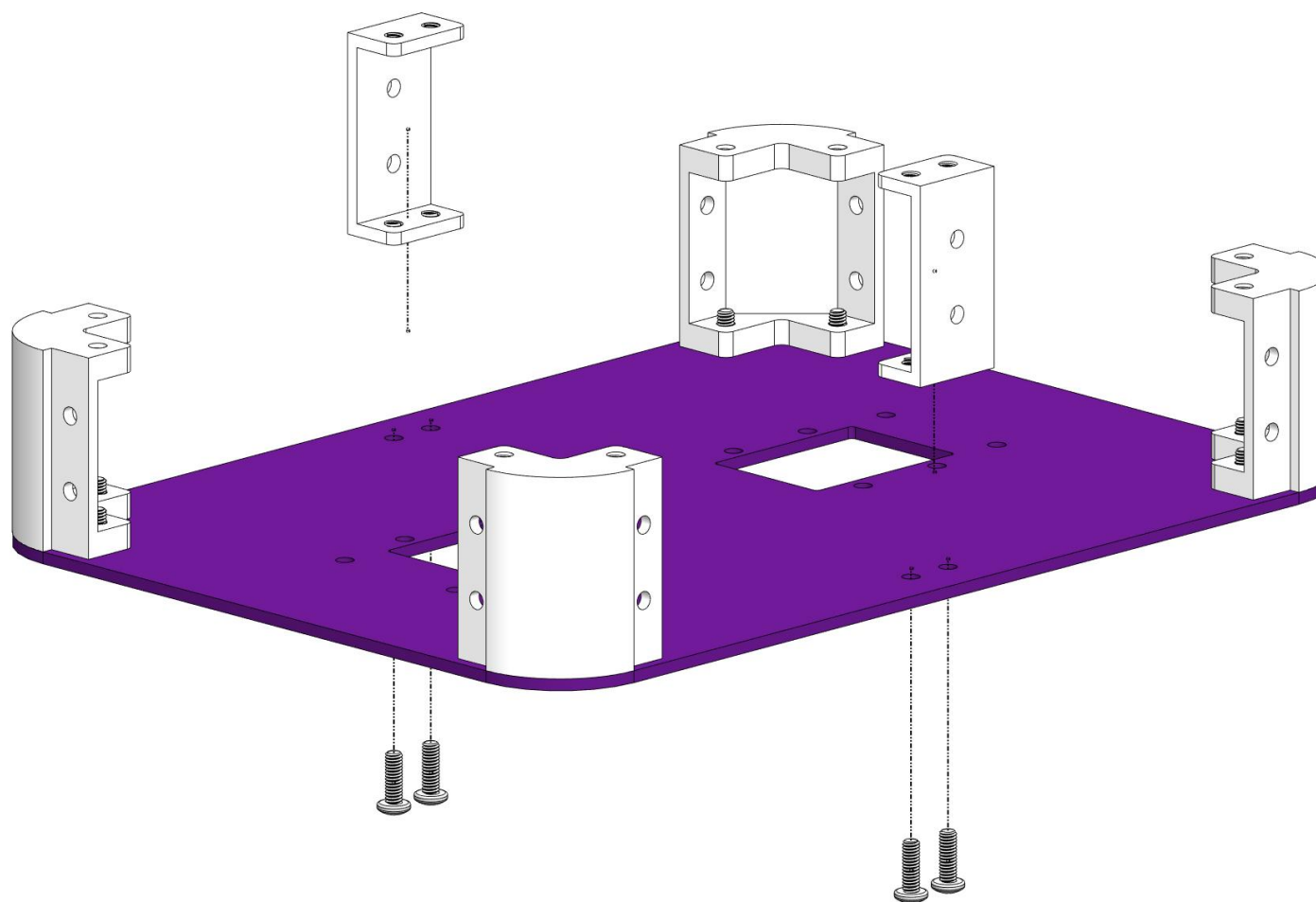
x2

[S1]



x4

2



[SP]



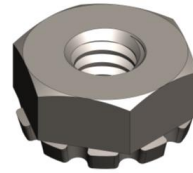
x1

[S1]



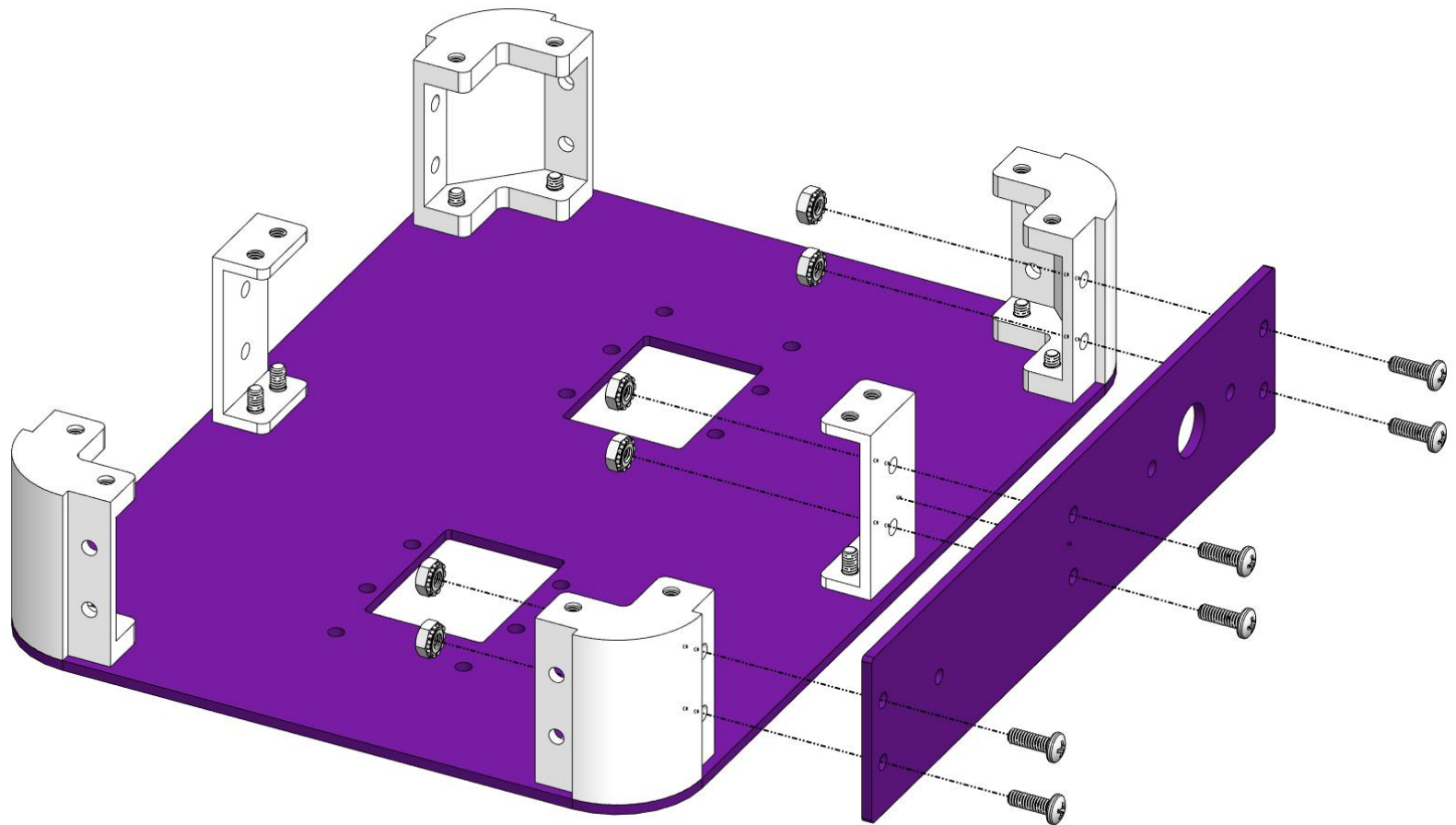
x6

[N1]



x6

3



[SP]



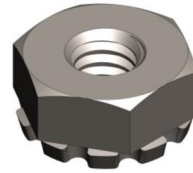
x1

[S1]



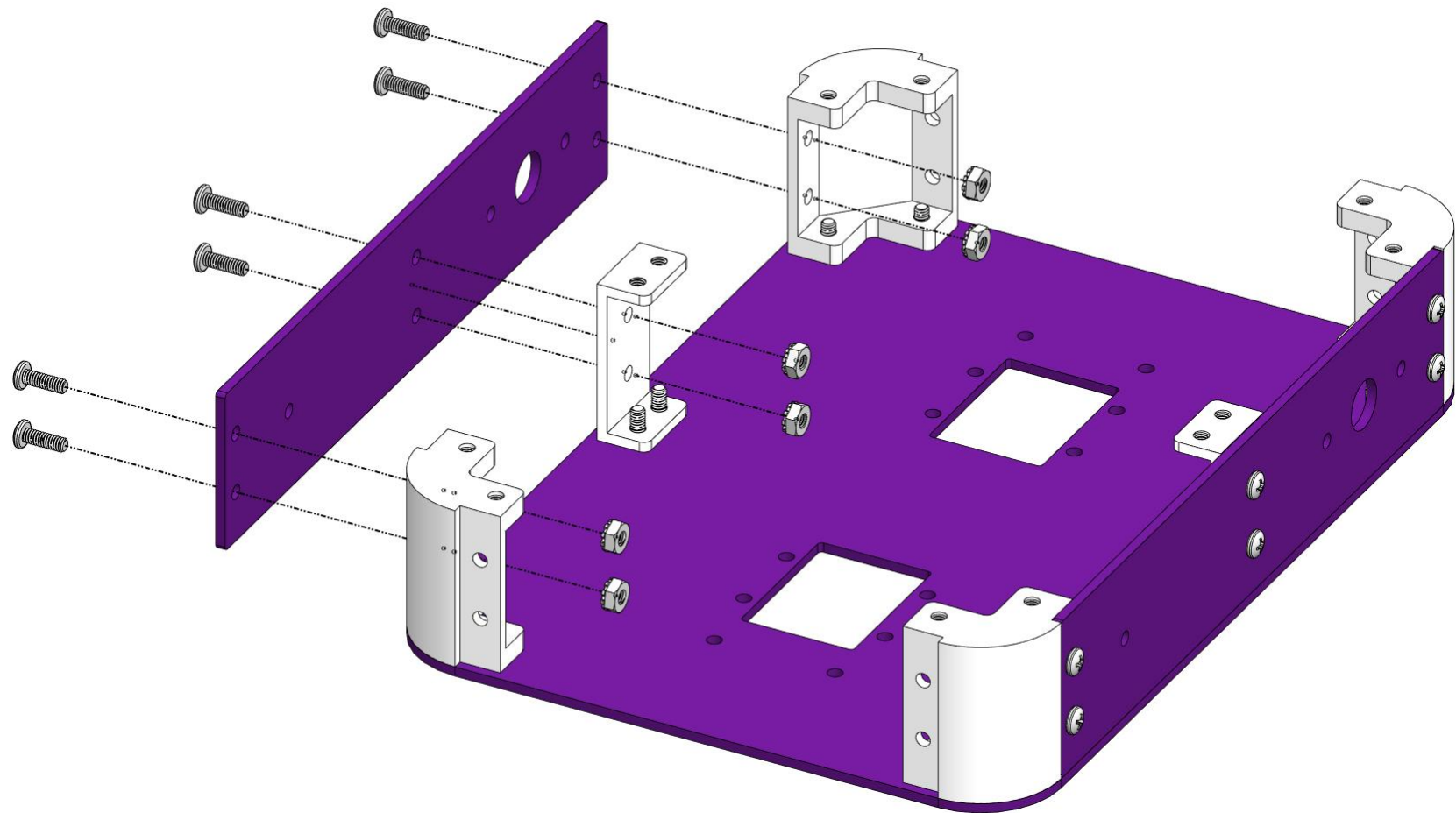
x6

[N1]



x6

4

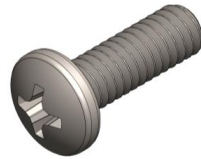


[FP]



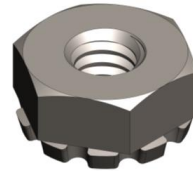
x1

[S1]



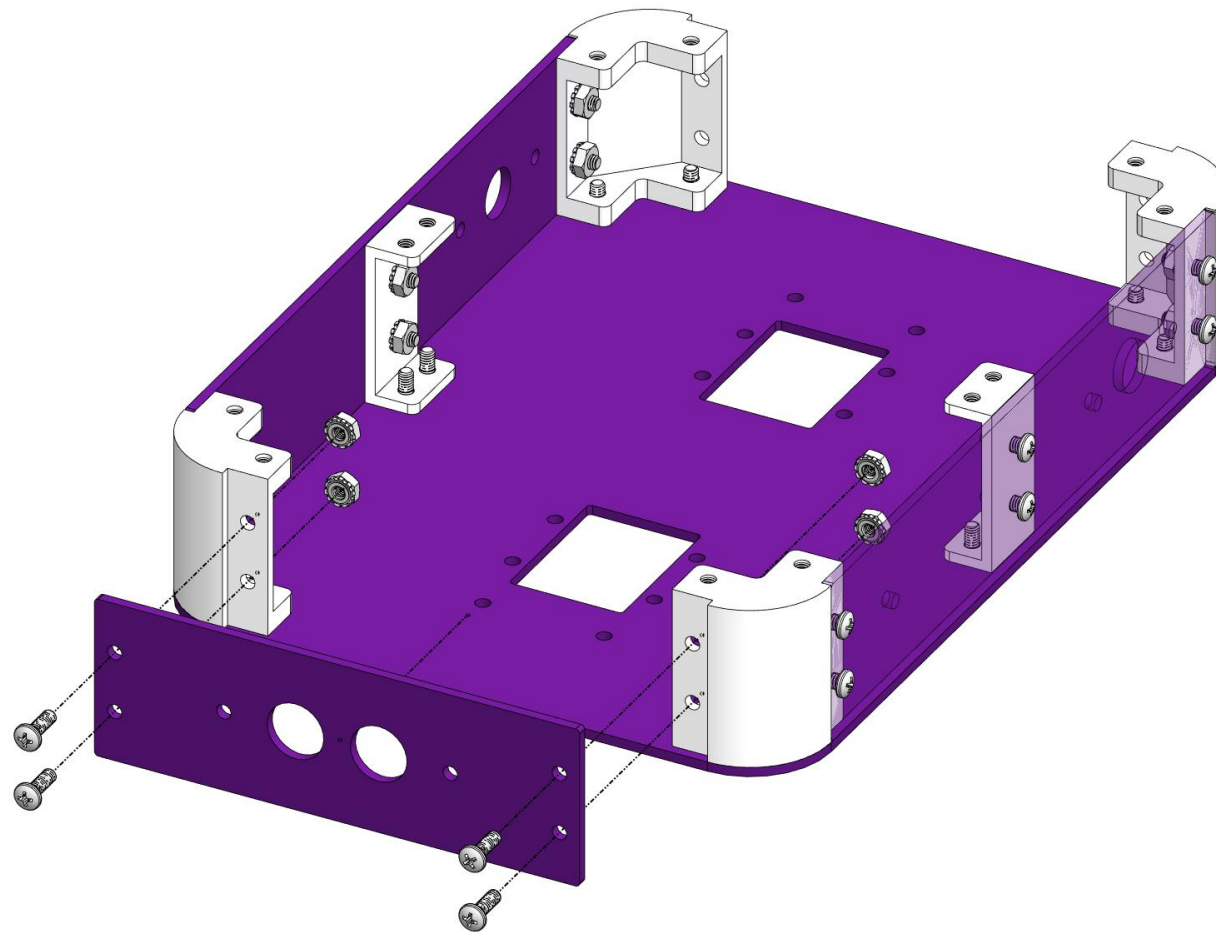
x4

[N1]



x4

5



[BP]



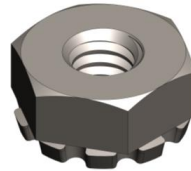
x1

[S1]



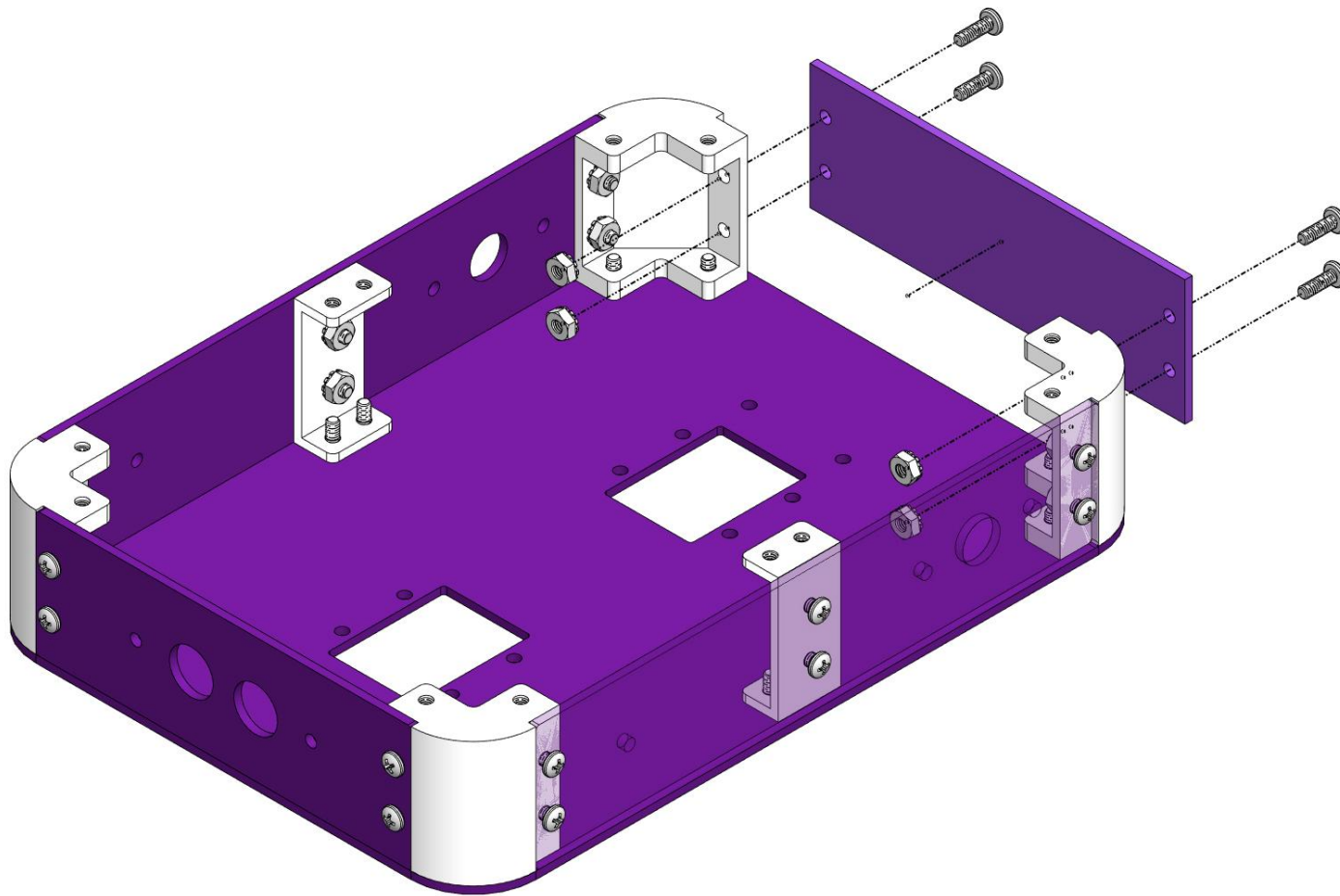
x4

[N1]

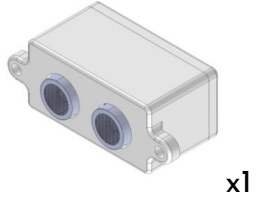


x4

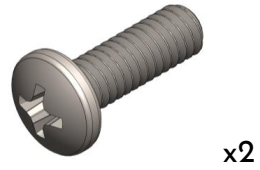
6



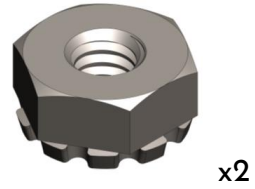
[US]



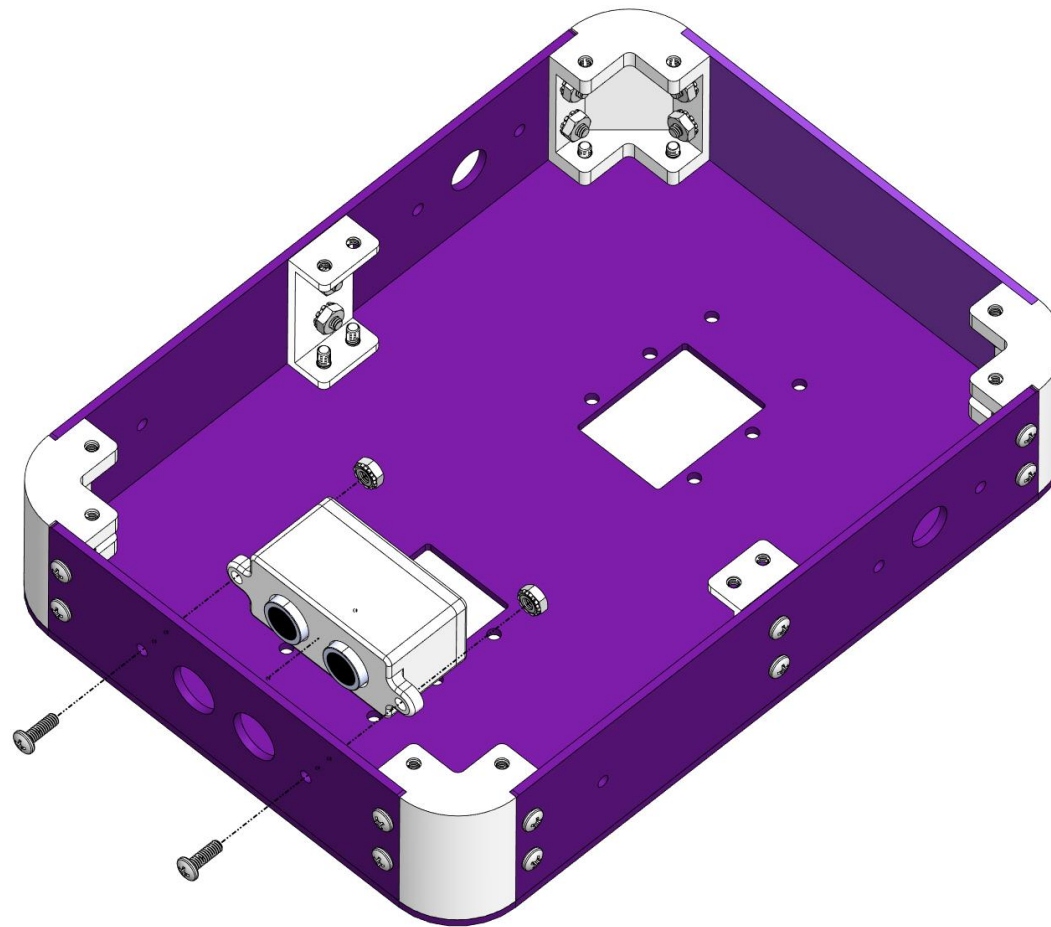
[S1]



[N1]

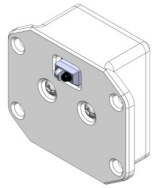


7





[LS]



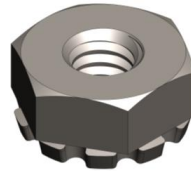
x1

[S1]



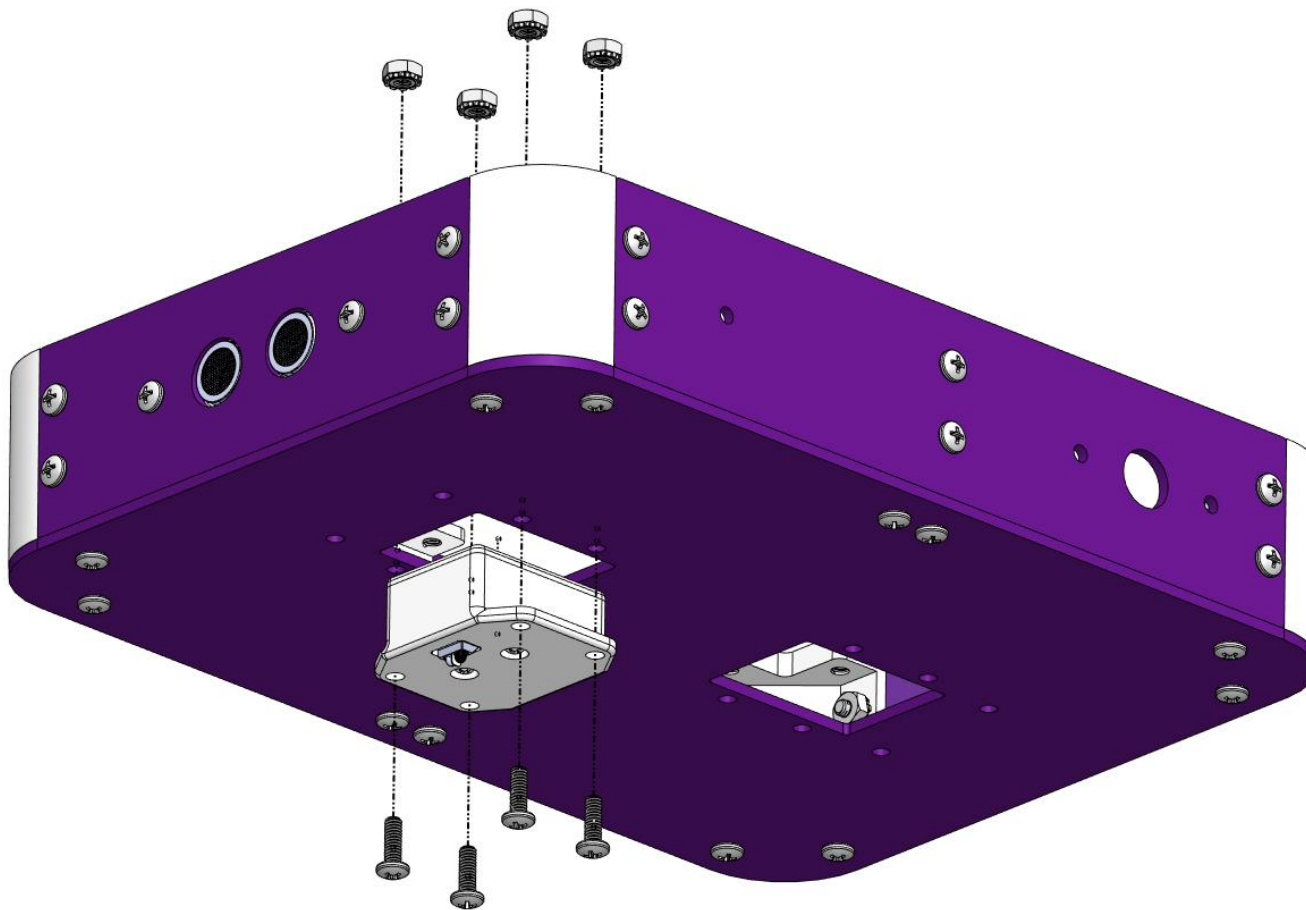
x4

[N1]

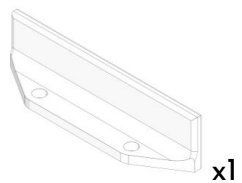


x4

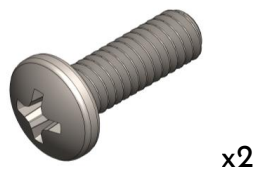
8



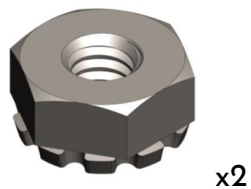
[BH]



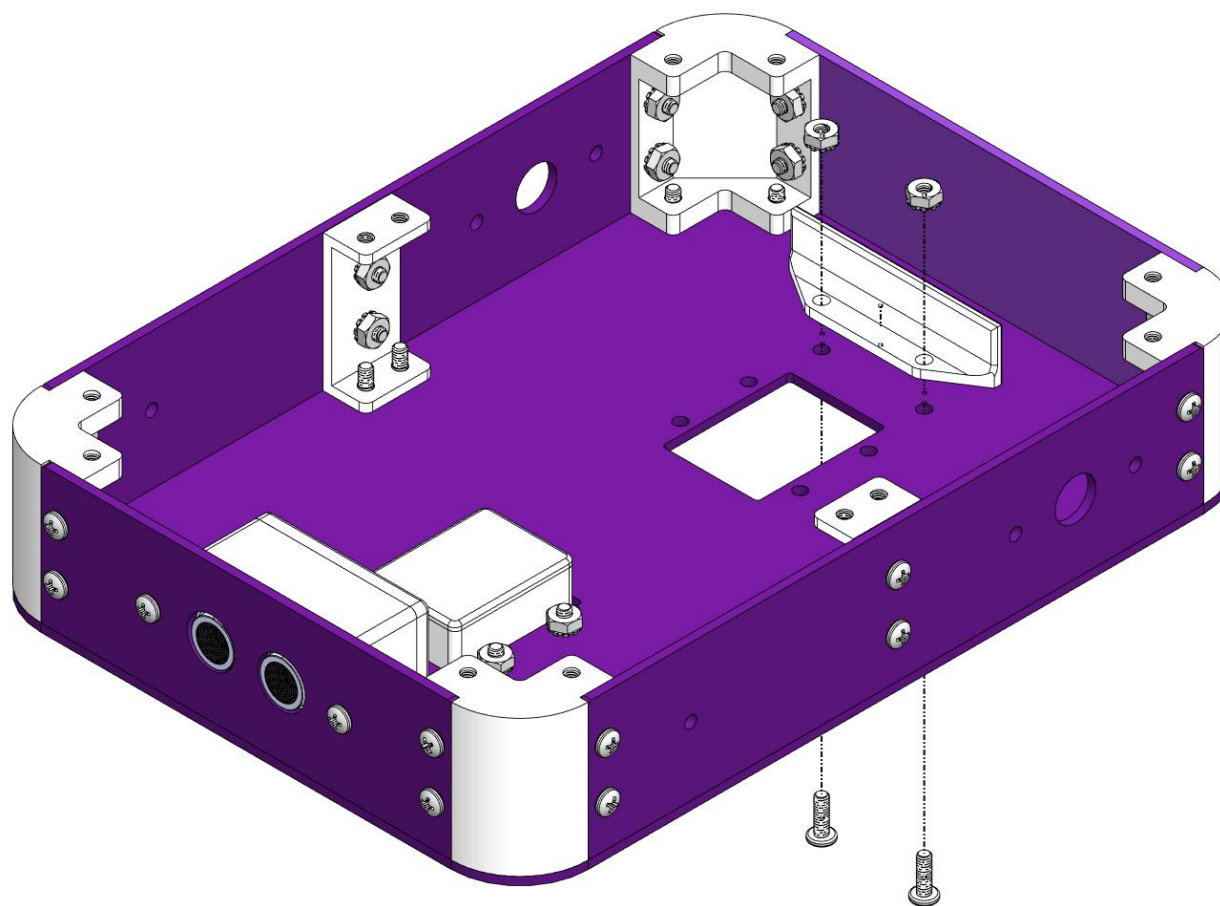
[S1]



[N1]

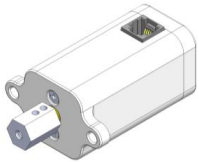


9





[M]

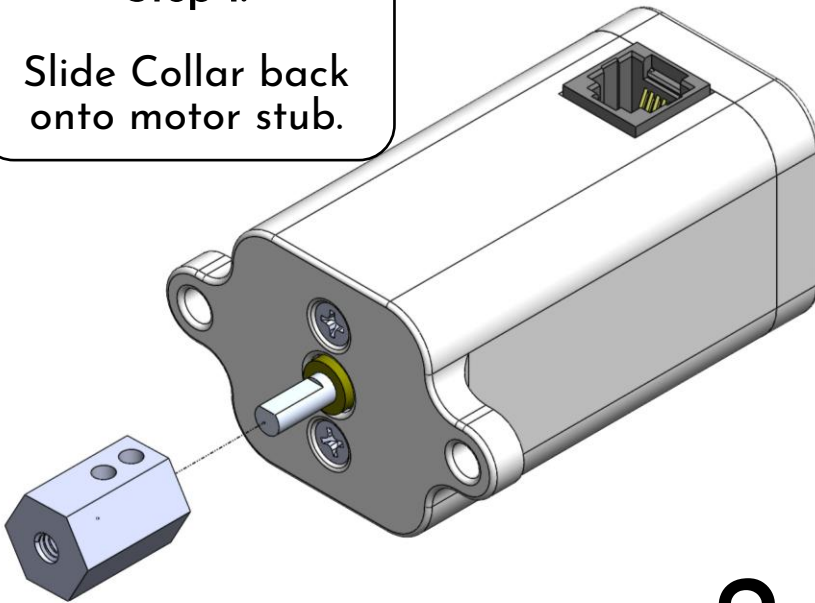


x2

10

**Step 1:**

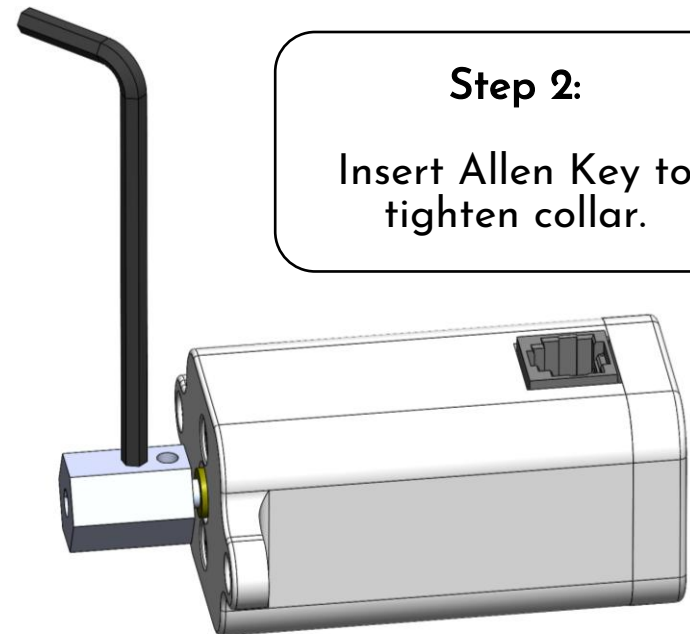
Slide Collar back  
onto motor stub.



x2

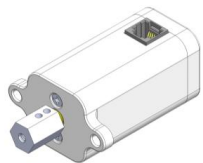
**Step 2:**

Insert Allen Key to  
tighten collar.



x2

[M]



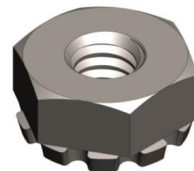
x1

[S1]



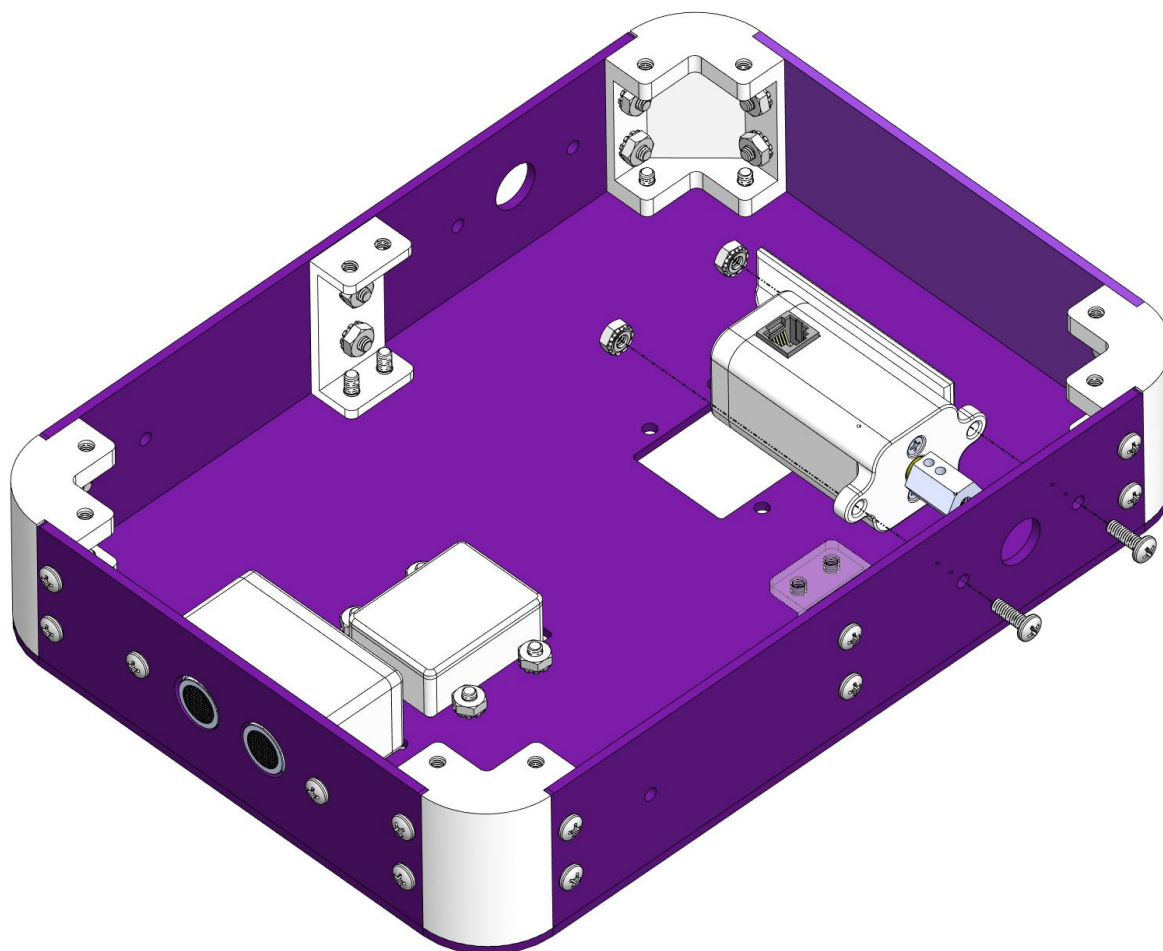
x2

[N1]

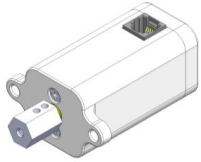


x2

11



[M]



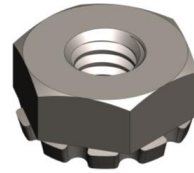
x1

[S1]



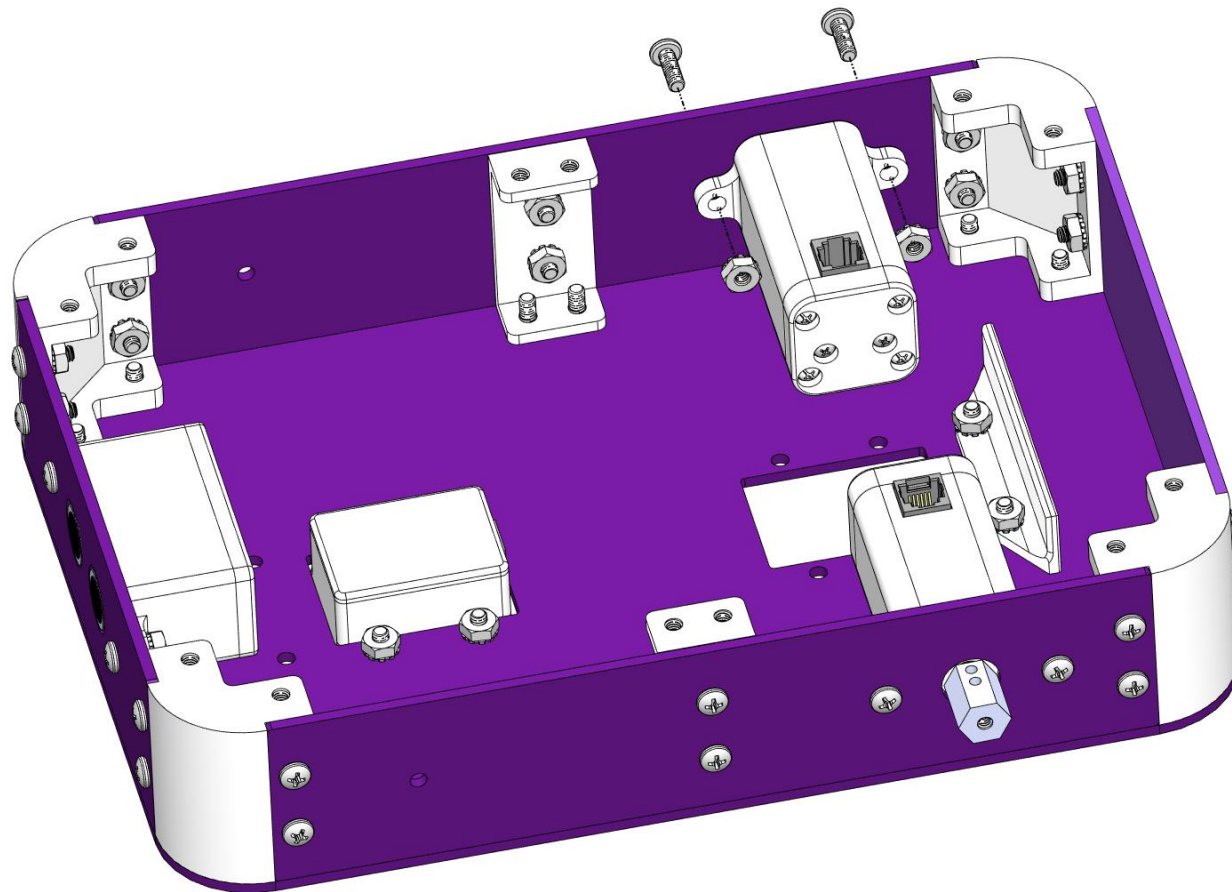
x2

[N1]



x2

12

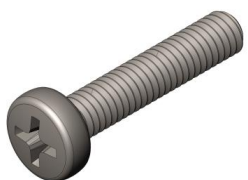


[TTW]

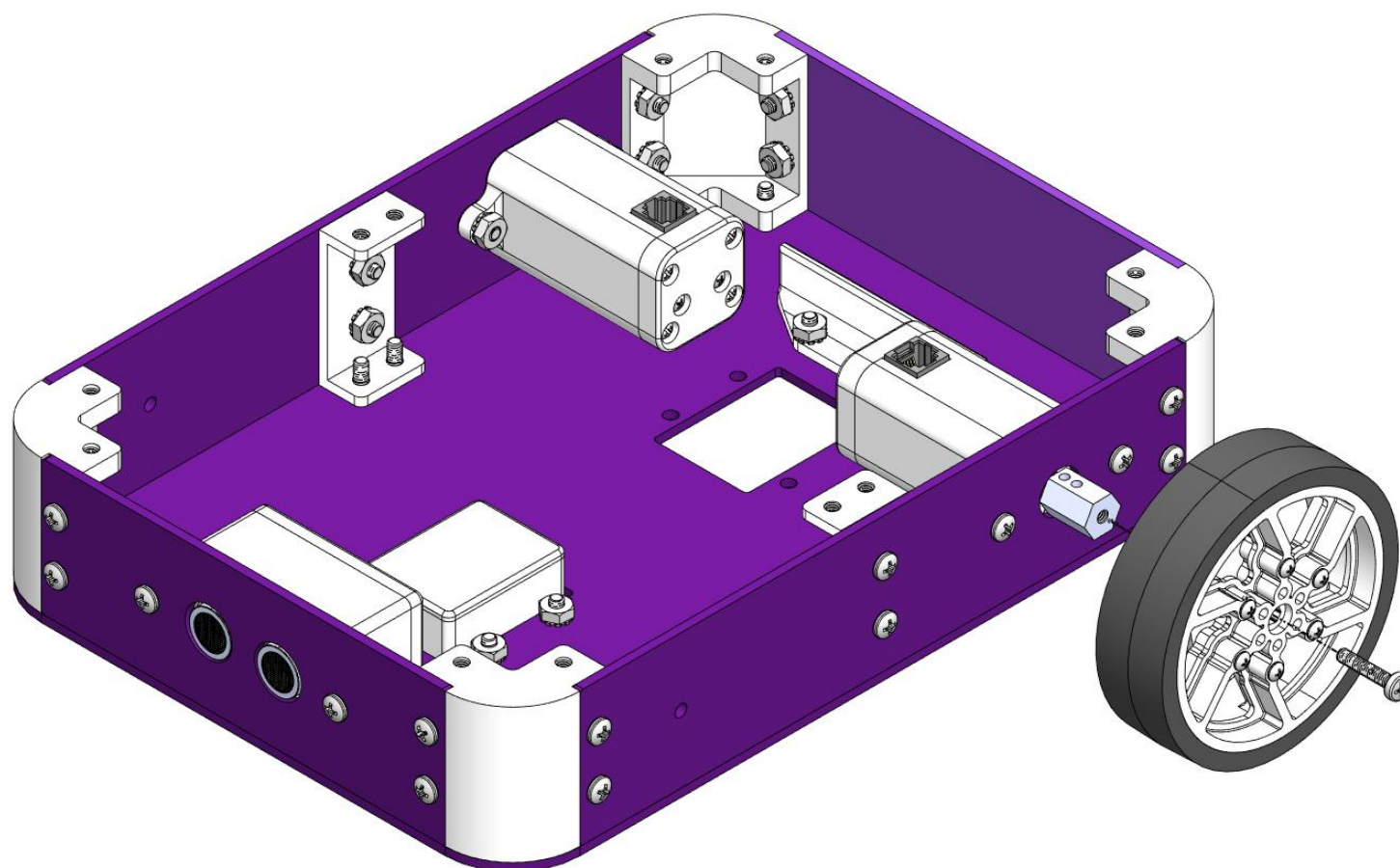


X1

[S2]



x1

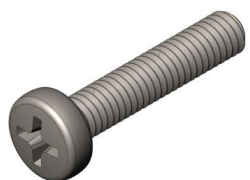


[TTW]



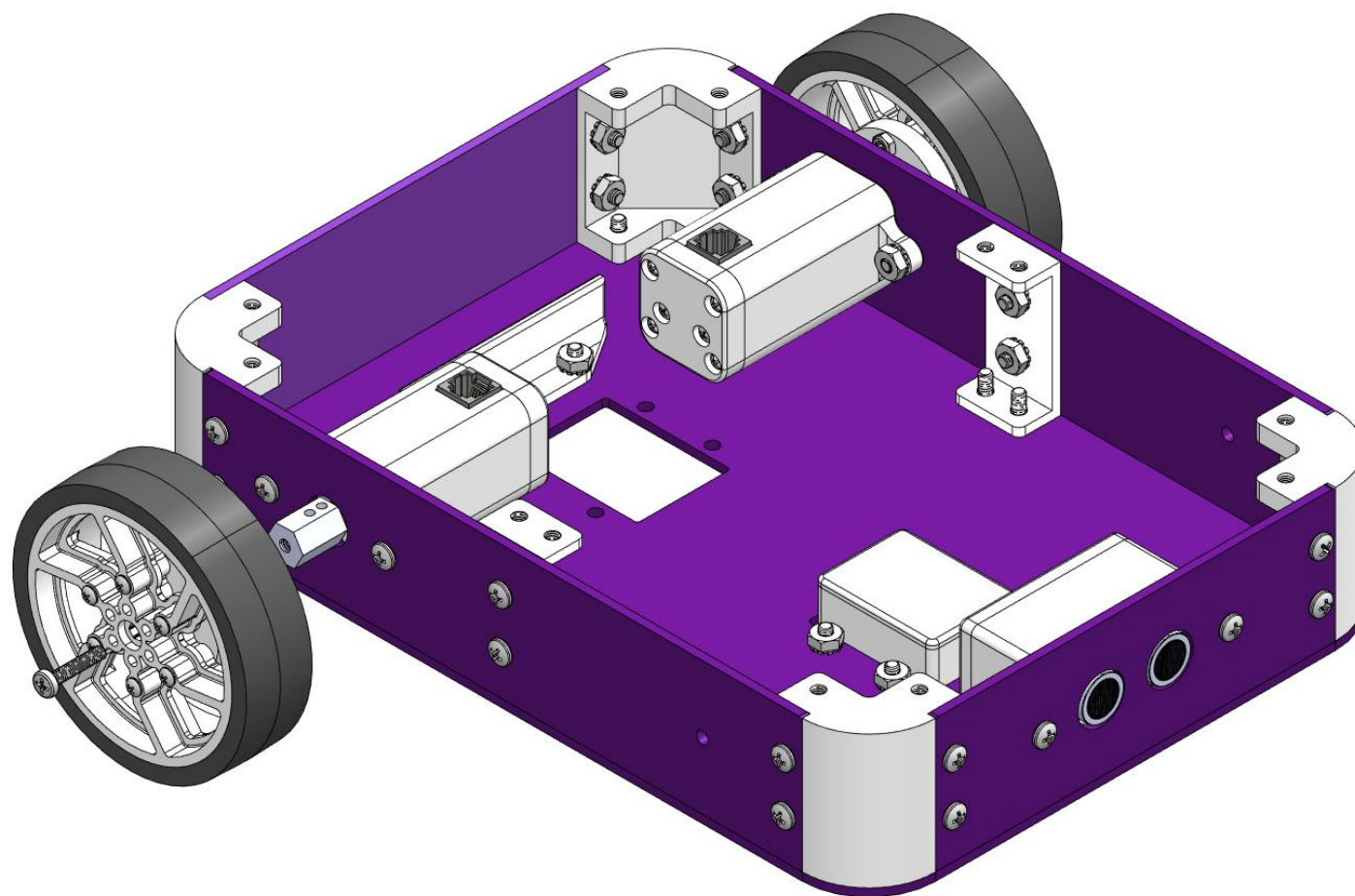
x1

[S2]



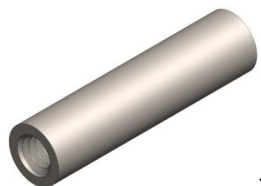
x1

14





[SO]



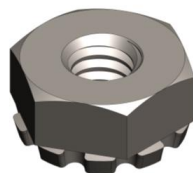
x1

[S1]



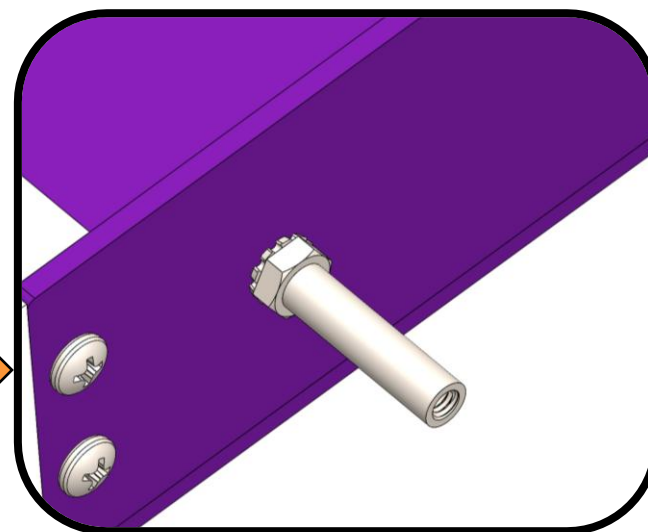
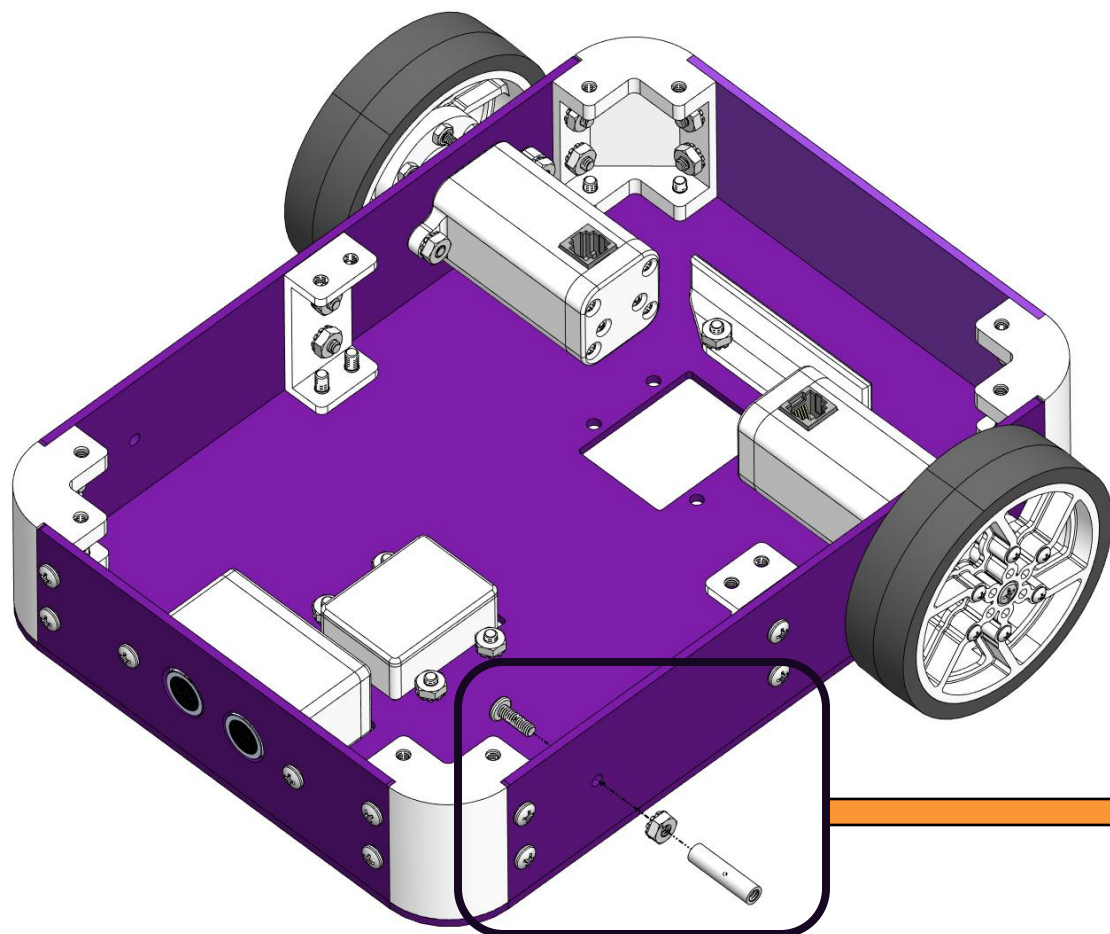
x1

[N1]



x1

15



[SO]



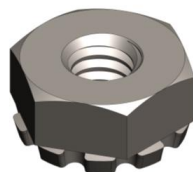
x1

[S1]

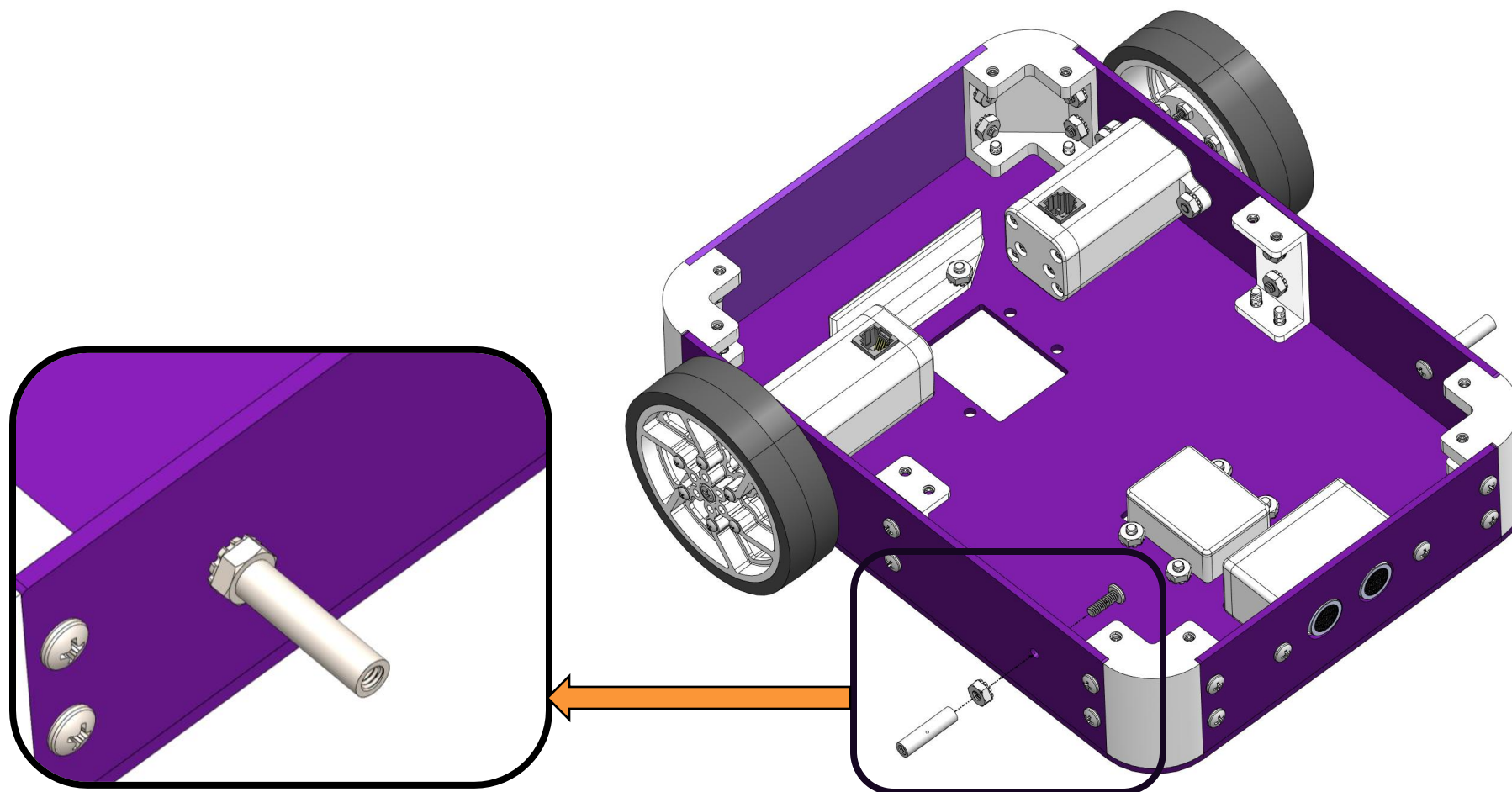


x1

[N1]



x1



[OMW]



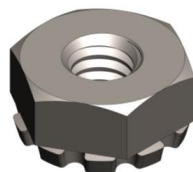
X1

[S1]



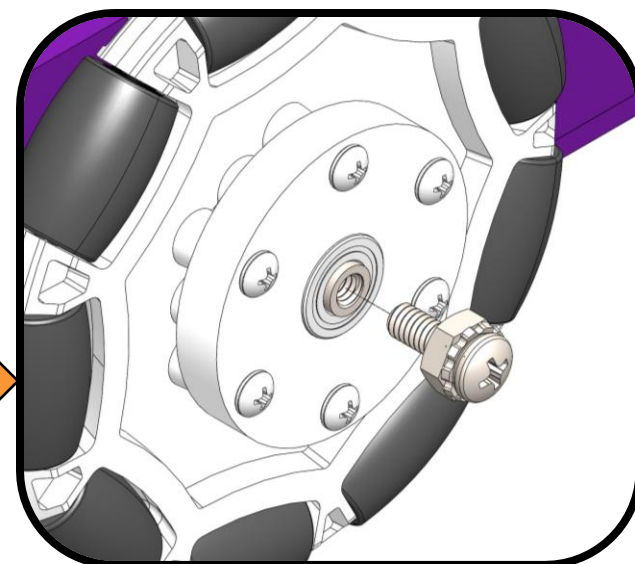
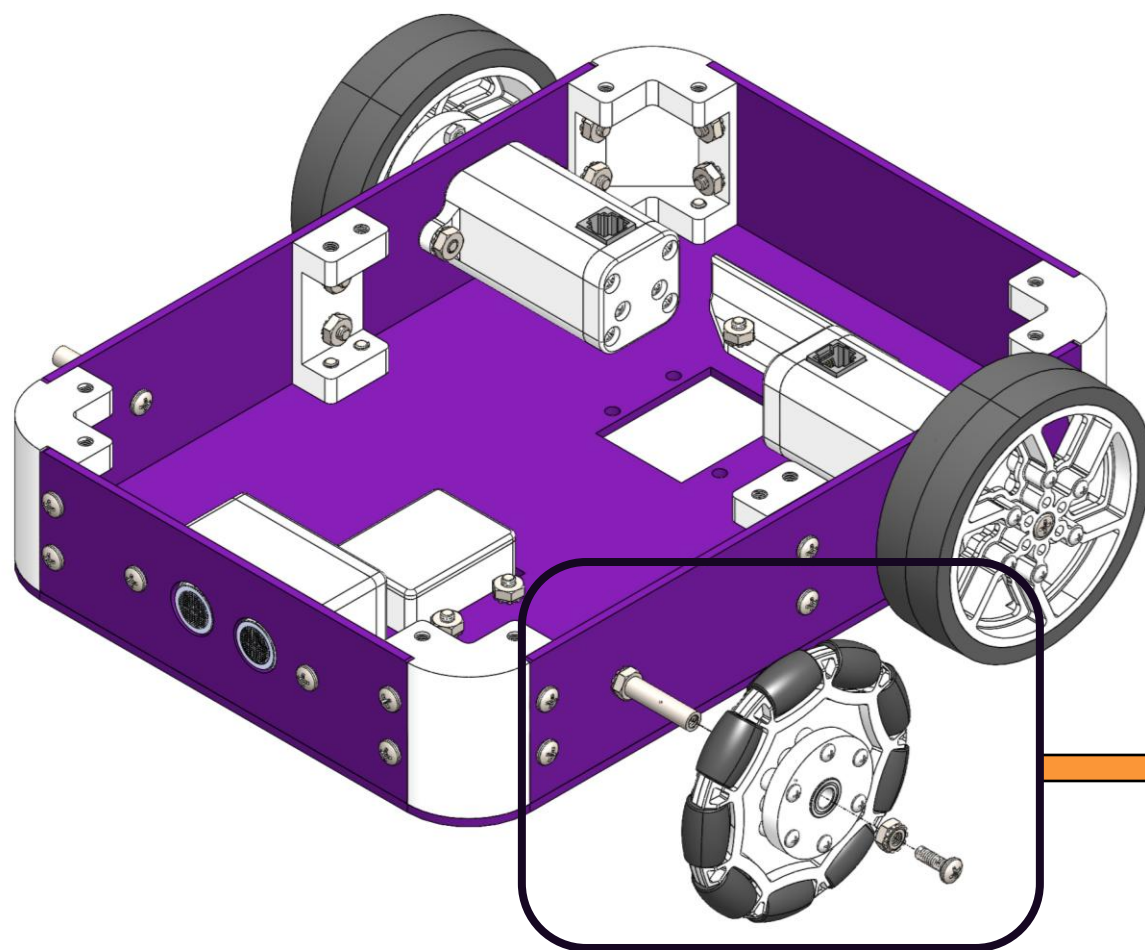
x1

[N1]



x1

17



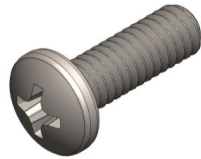


[OMW]



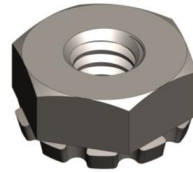
x1

[S1]



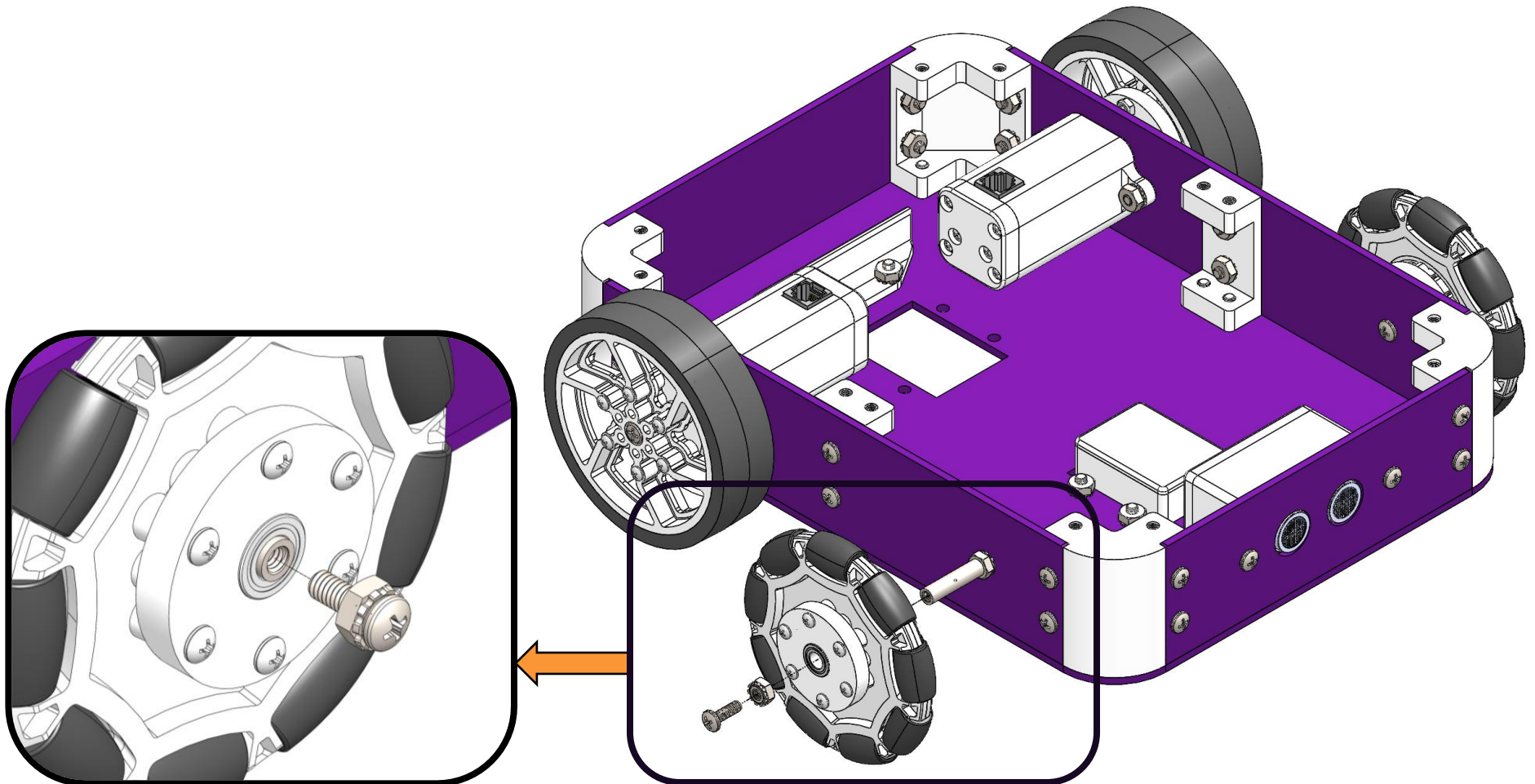
x1

[N1]



x1

18



[C]



x1

[WR]

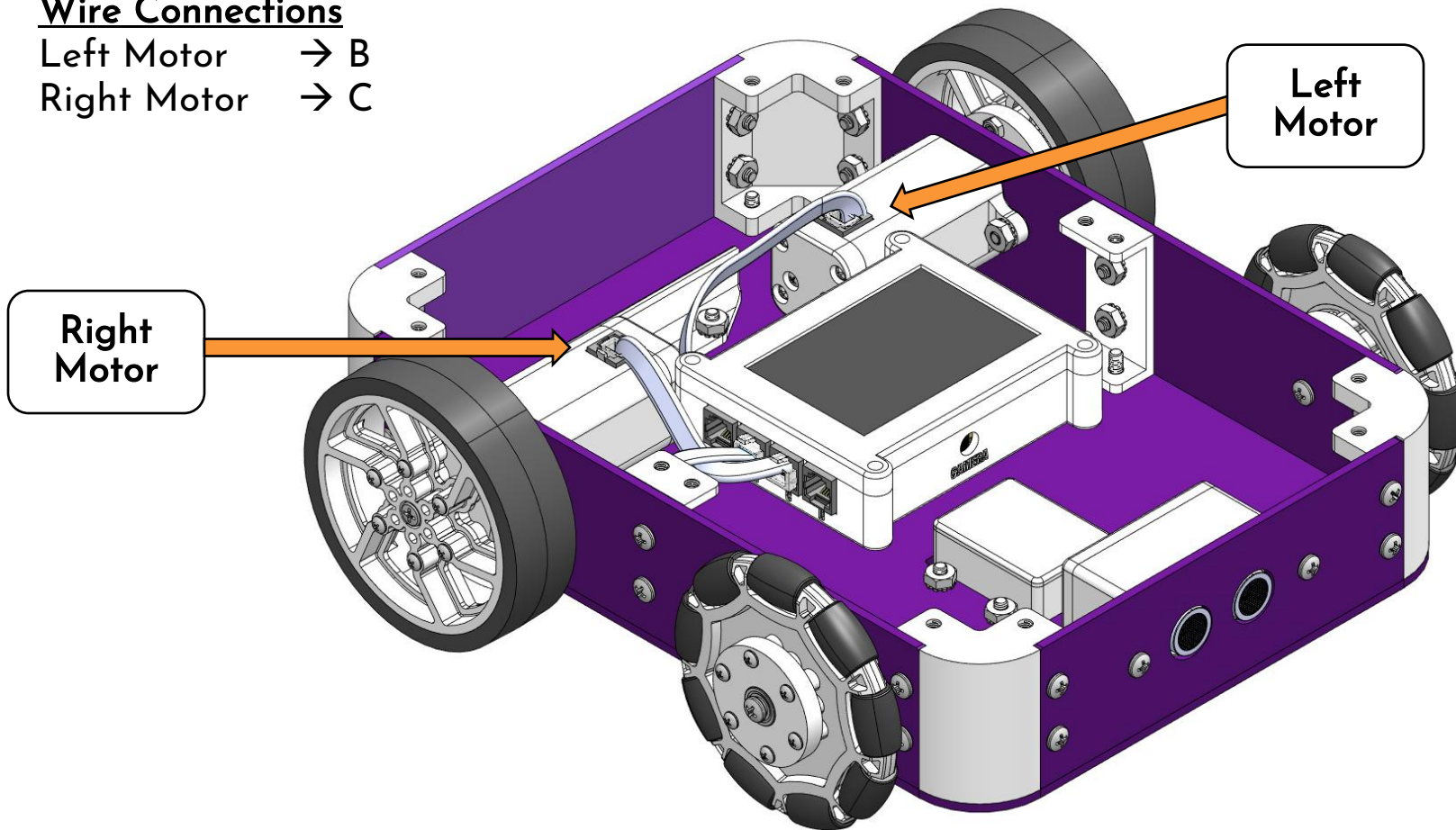


x2

### Wire Connections

Left Motor → B

Right Motor → C



[WR]

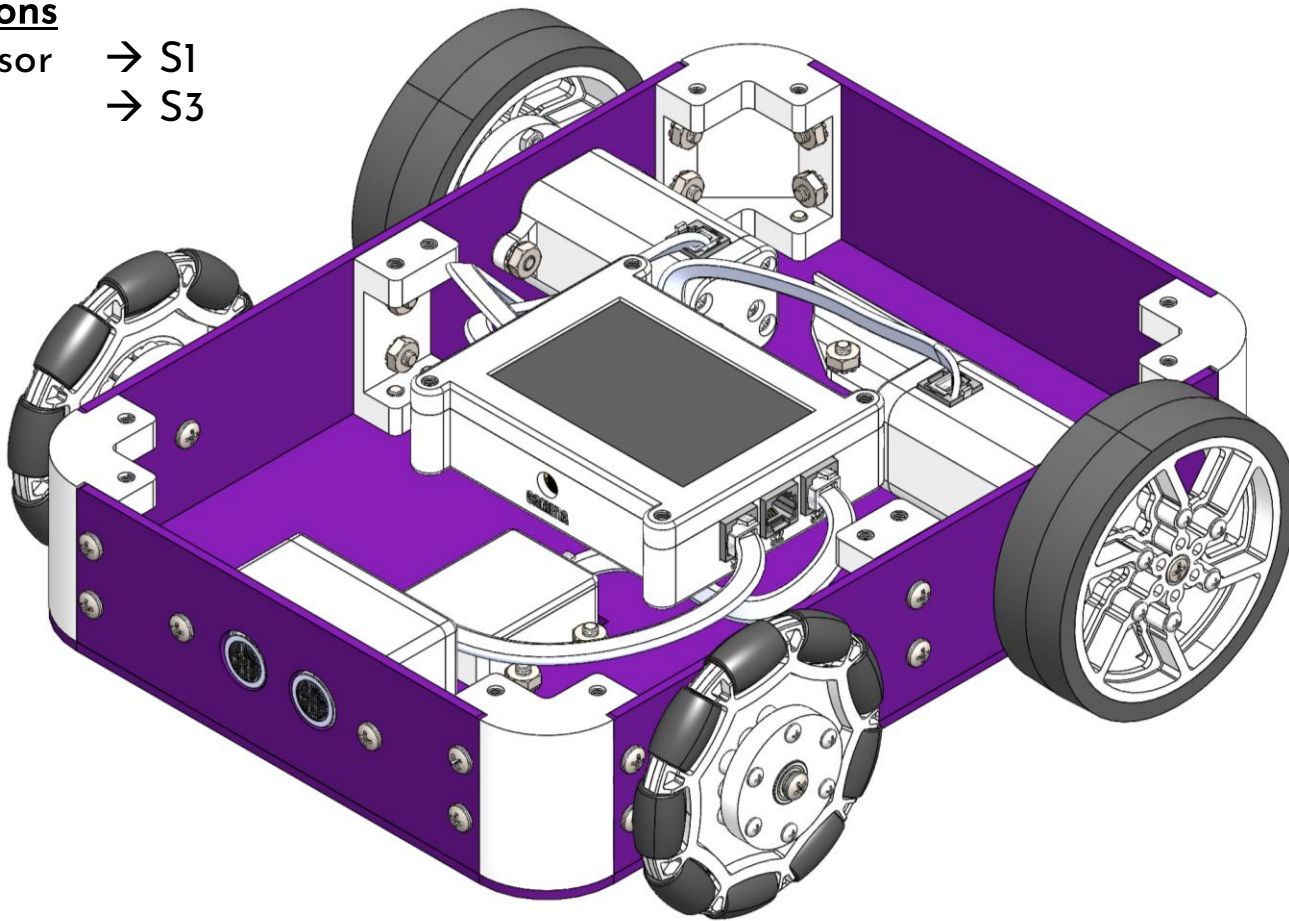


x2

### Wire Connections

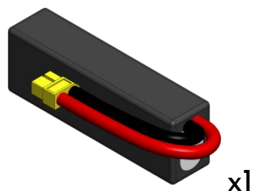
Ultrasonic Sensor → S1

Light Sensor → S3

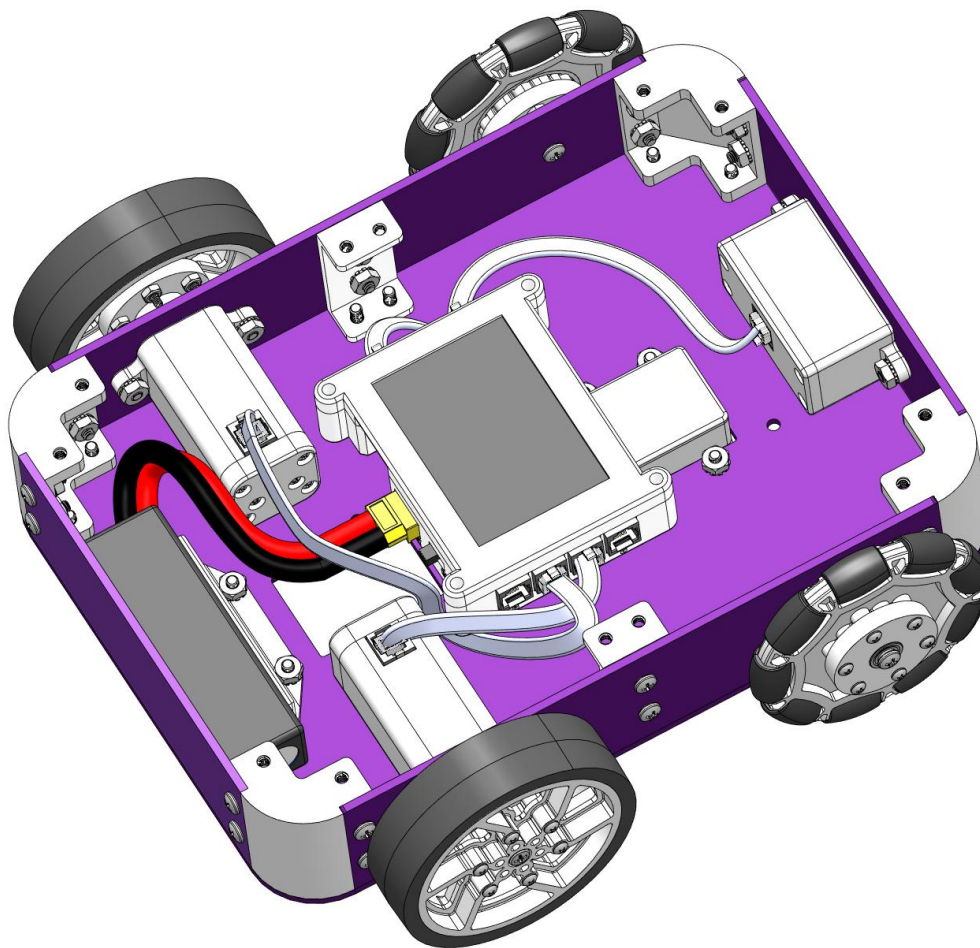




[B]

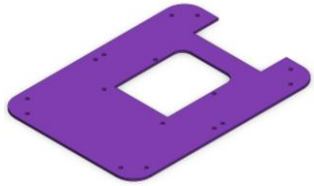


21



[TP]

[S1]

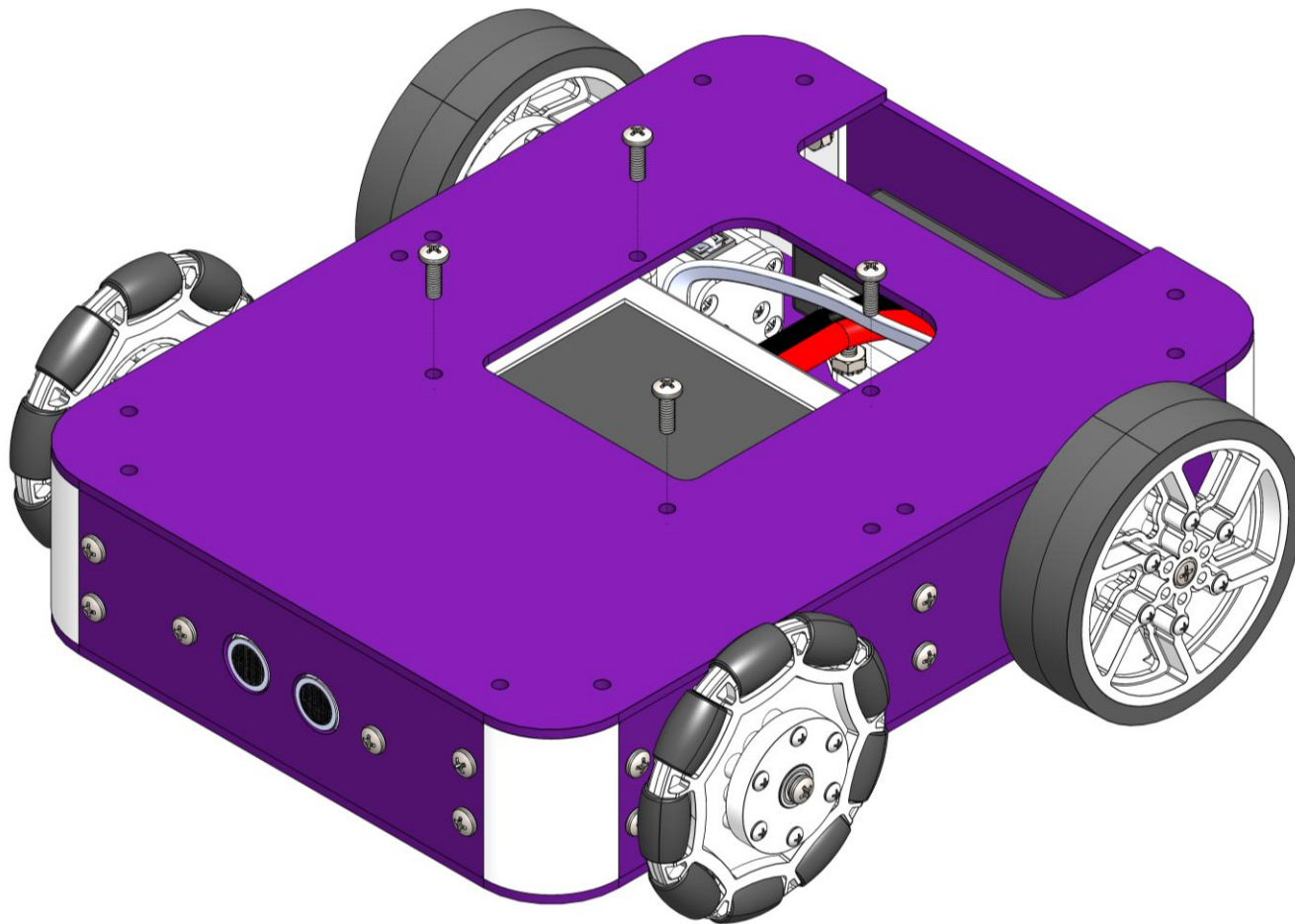


x1



x4

22

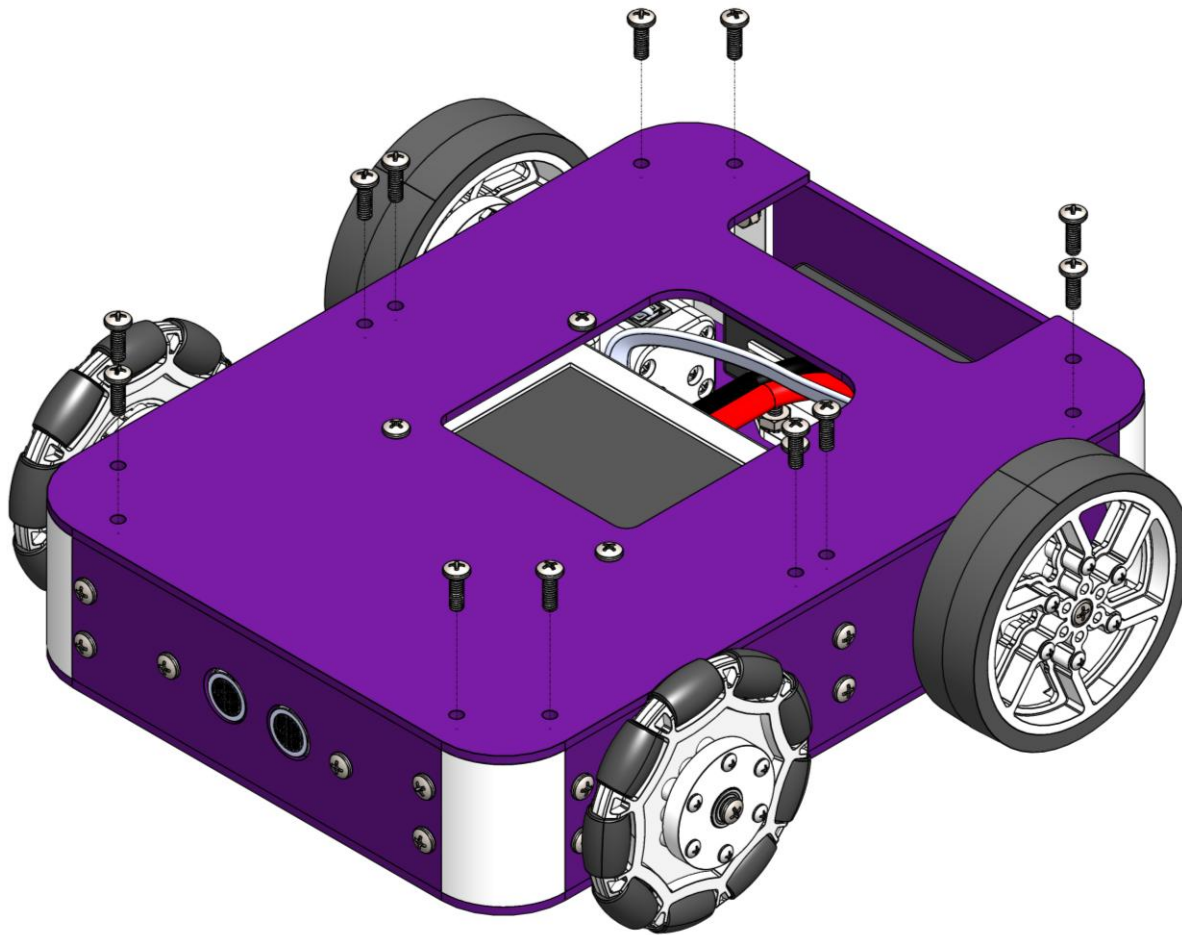


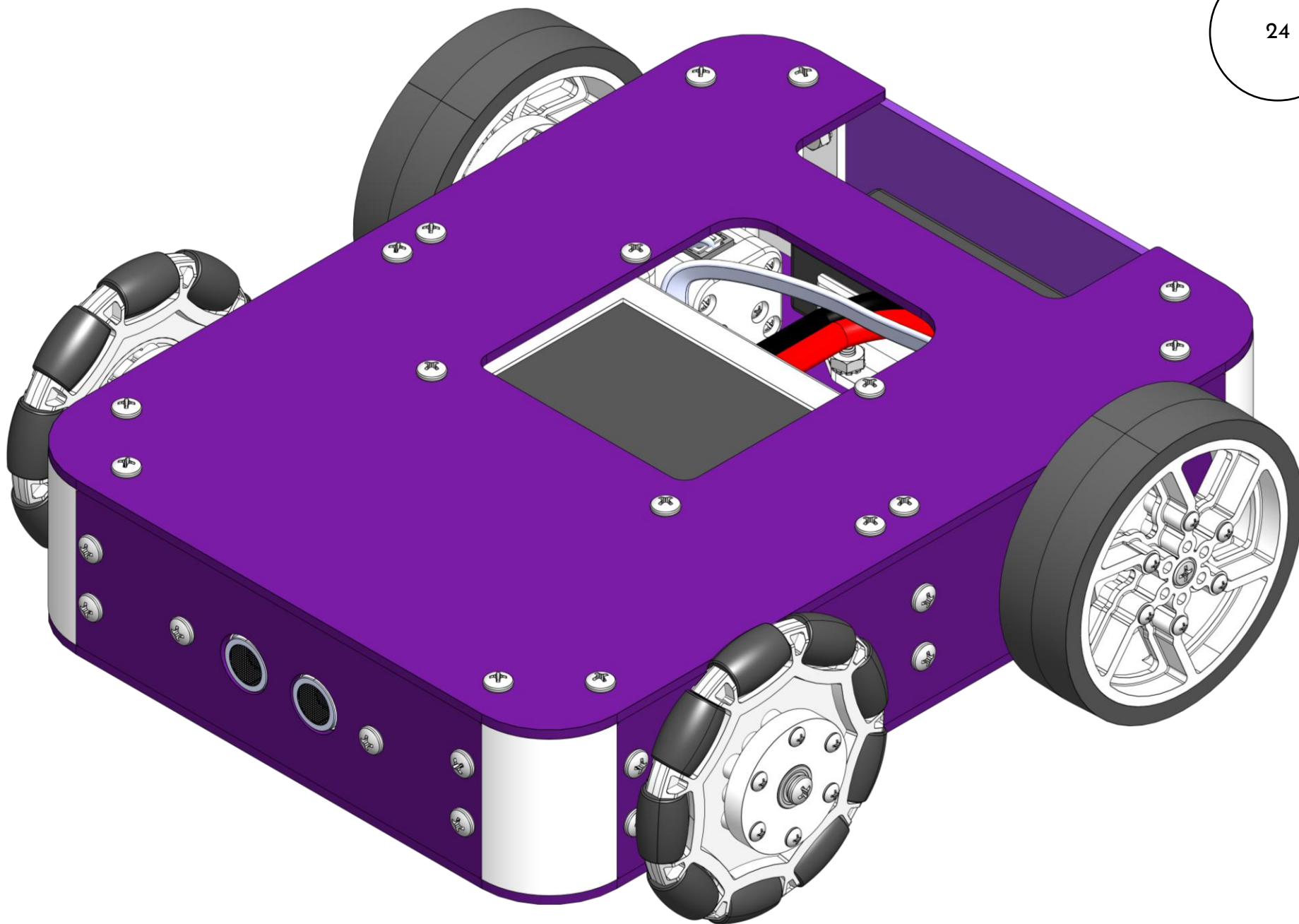
[S1]



x12

23

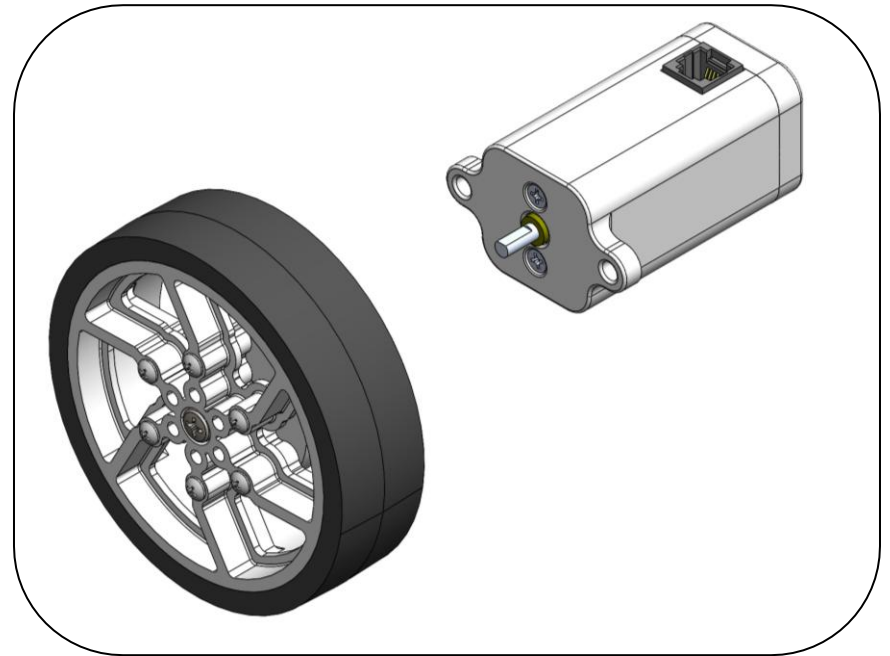
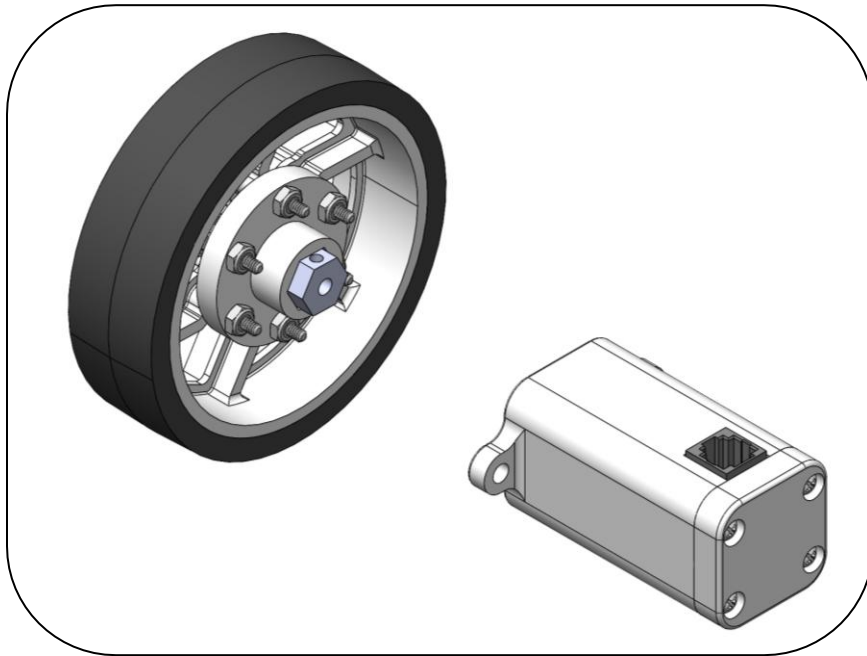




# ROBOT TROUBLESHOOTING

## MOTOR WHEEL FALLING OFF

Sometimes the motor wheels loosen and fall off the robot and look like this:



Follow the steps on the next page to fix this issue.



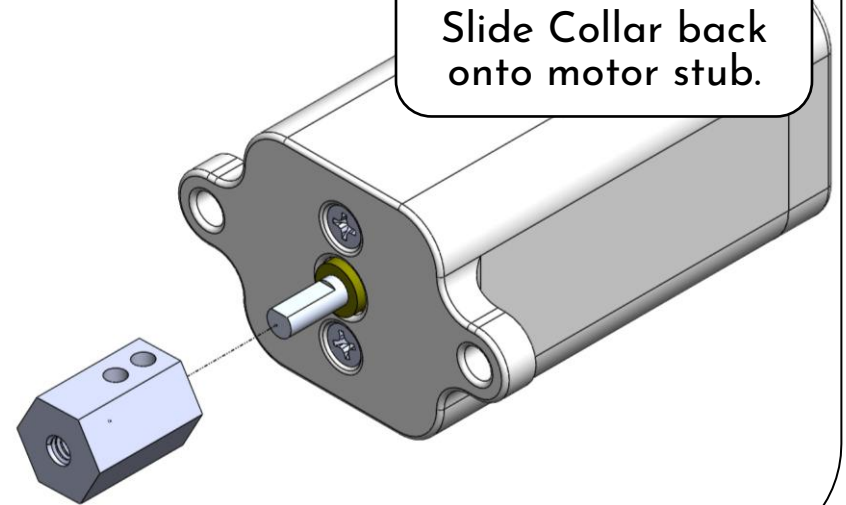
**Step 1:**

Remove S2  
Screw from the  
center of the  
wheel.



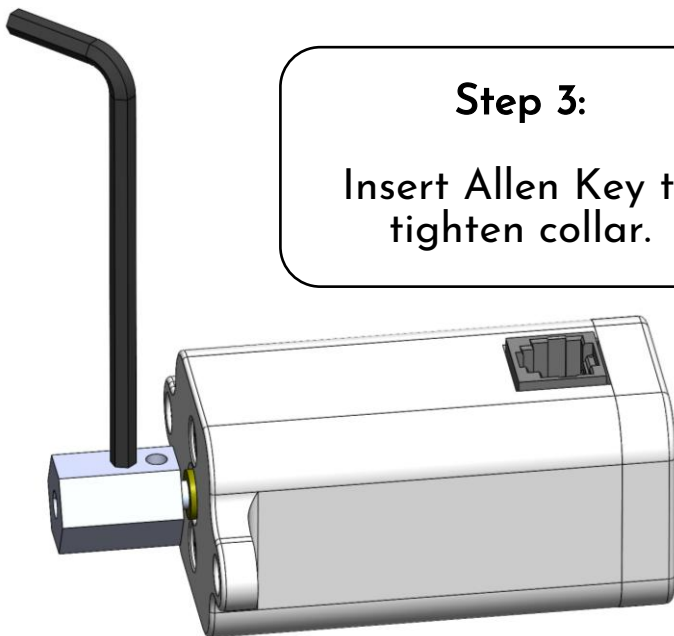
**Step 2:**

Slide Collar back  
onto motor stub.



**Step 3:**

Insert Allen Key to  
tighten collar.



**Step 4:**

Put S2 Screw  
back in center  
of wheel.

