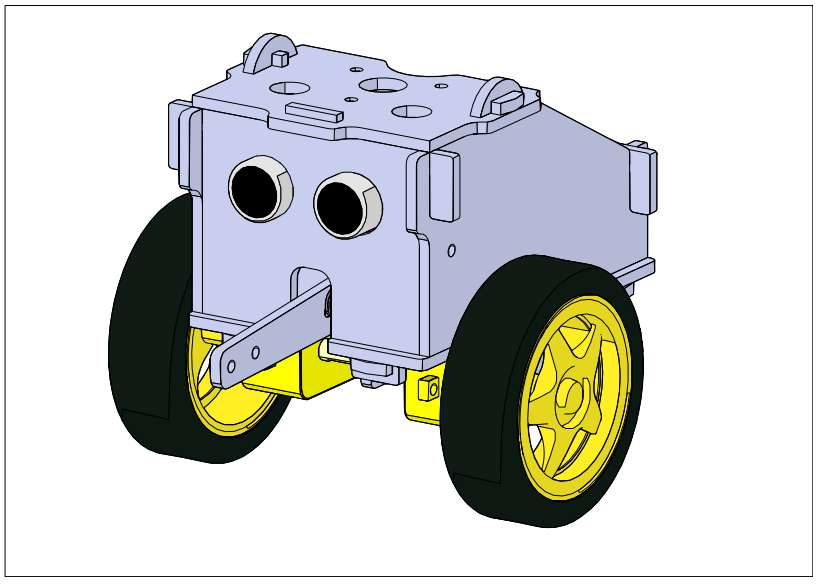
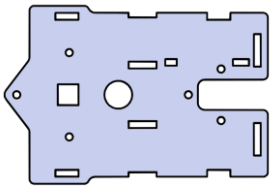
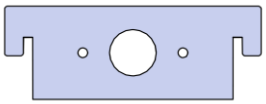
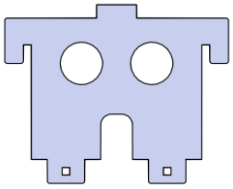
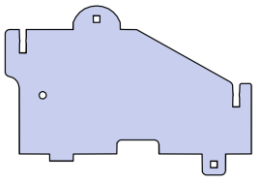
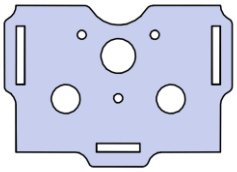
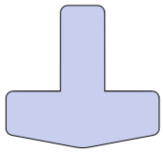
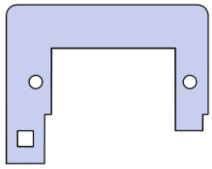
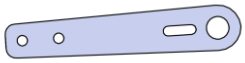
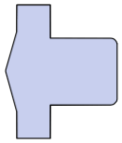
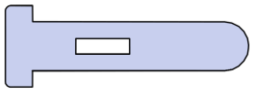
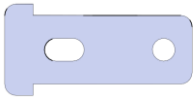
MiiA.bit Assembly Instructions
Revision C

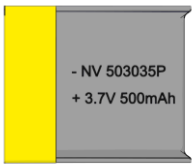
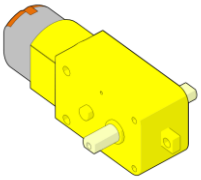
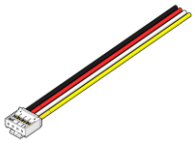
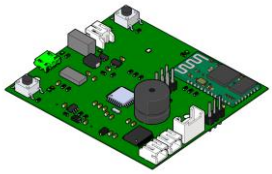
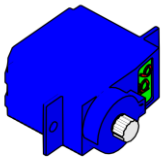
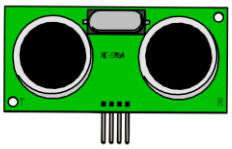
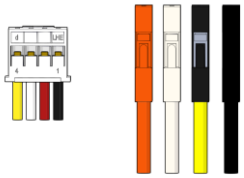
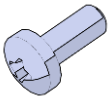


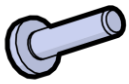
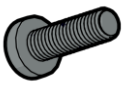
Congratulations! You are now the proud new owner of your own MiiA.bit robot. These instructions will take you through everything you need to know on how MiiA.bit is put together and what makes her tick. MiiA.bit is built in the form of a 3D puzzle, so the fun begins immediately. So, without further ado, let's jump in!

Required Tools: Phillips screwdriver

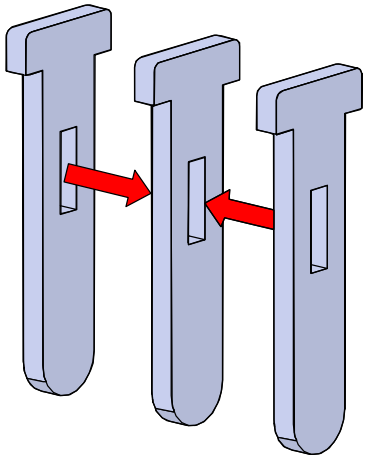
MiiA.bit kit contents

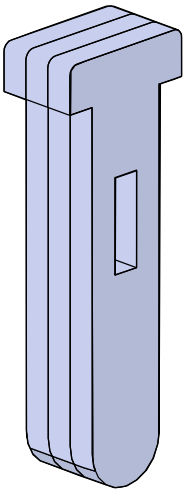
Part number (Code)	Quantity	Part image	Part number (Code)	Quantity	Part image
Base (R1)	1		Back (R2)	1	
Front (R3)	1		Side (R4)	2	
Roof (R5)	1		General pin (R6)	7	
Servo mount (R7)	1		Arm (R8)	1	
Servo stand pin (R9)	1		Stand (R10)	3	
DC Motor mount (R11)	1		Servo horn(C9)	1	

LiPo battery (C1)	1		Dc Motor (C2)	2	
Grove-to-Grove connector (C3)	1		Control board (C4)	1	
Servo motor (C5)	1		Ultrasonic sensor (C6)	1	
Wheel (C7)	2		Grove-to-pin connector (C8)	1	
Servo screw (S1)	1		Servo washer screw (S2)	1	
M2 nut (S3)	2		M3 nut (S4)	4	

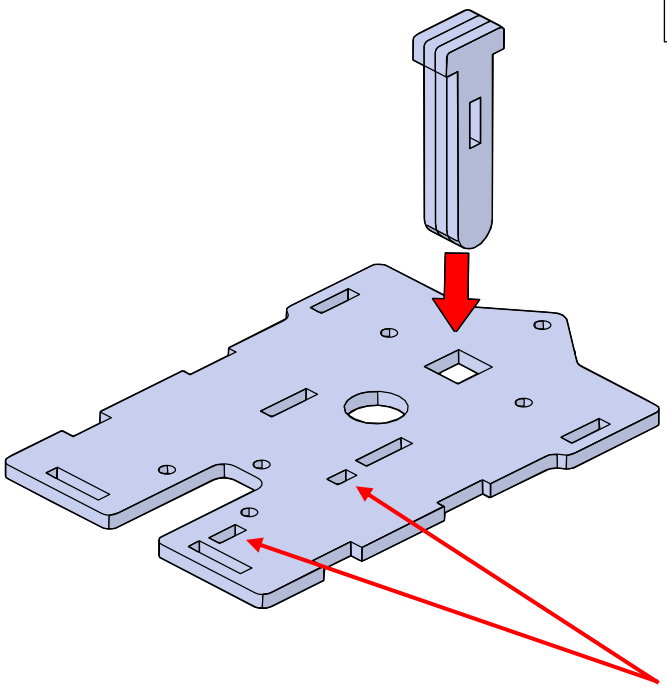
M2x10mm bolt (S5)	2		M3x10mm bolt (S6)	6	
M3x30mm flat head bolt (S7)	4		M3 standoff (S8)	3	

- Stand (R10)



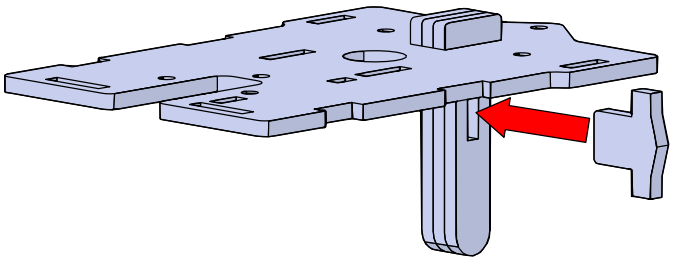


- Stand (R10)
- Base (R1)

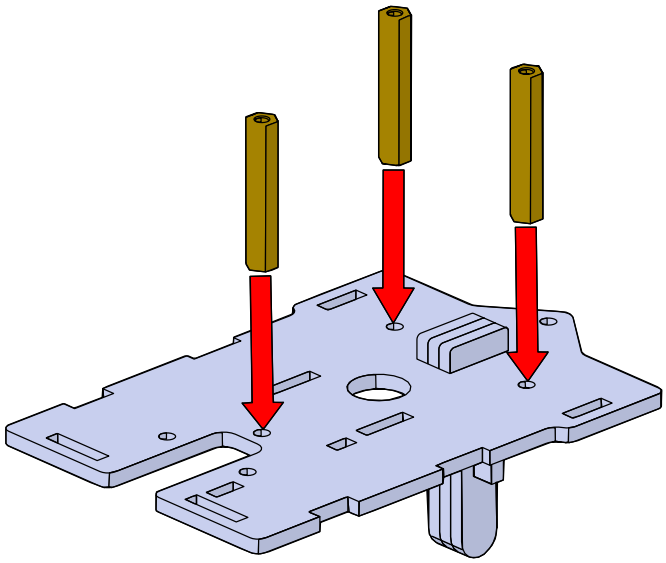


Note: Servo motor slots should be on right as shown in image.

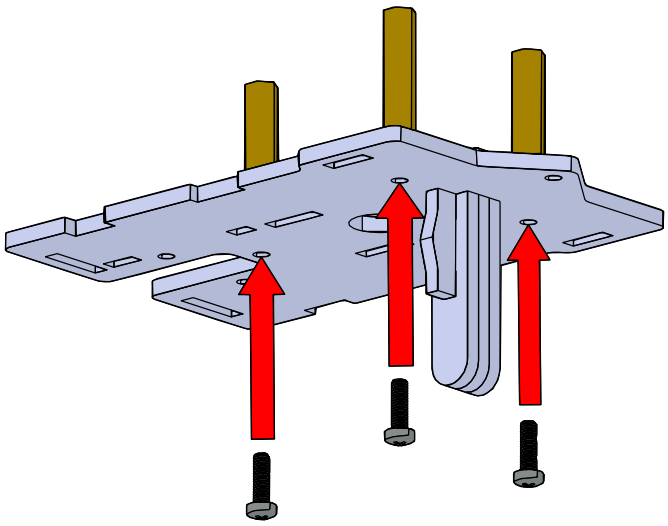
- Servo stand pin (R9)

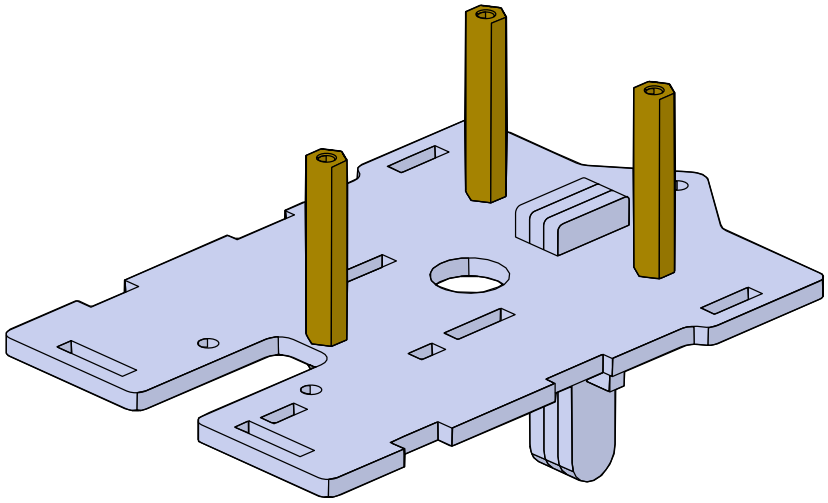


- M3 standoff (S8)

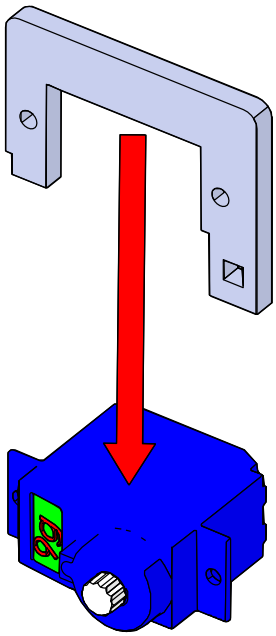


- M3x10mm bolt (S6)

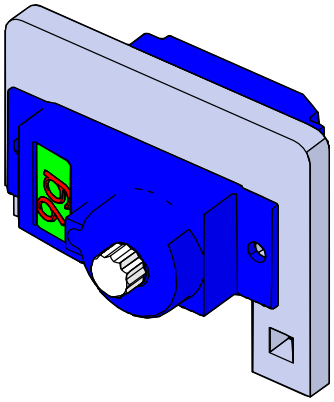




- Servo mount (R7)
- Servo motor (C5)

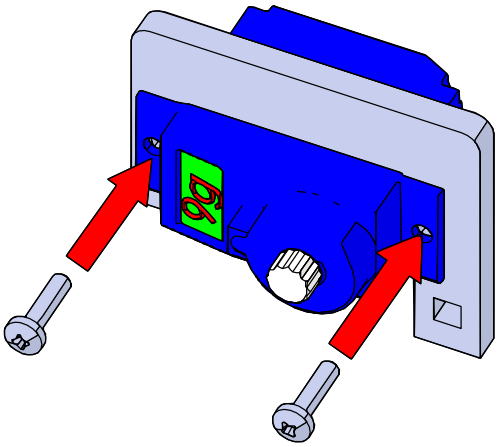


Note: Servo mount should be placed behind the servo motor holes

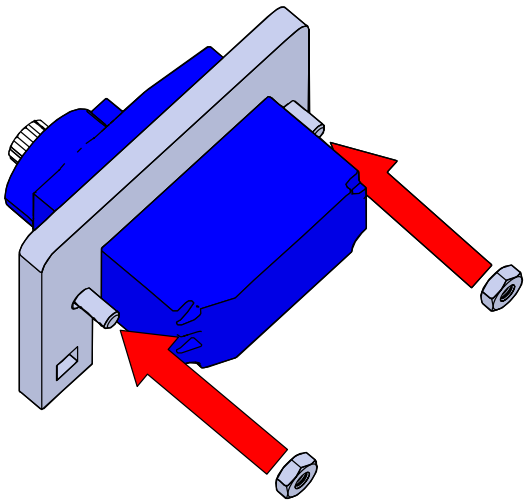


Note: Servo motor shaft should be closest to longer side of servo mount as shown

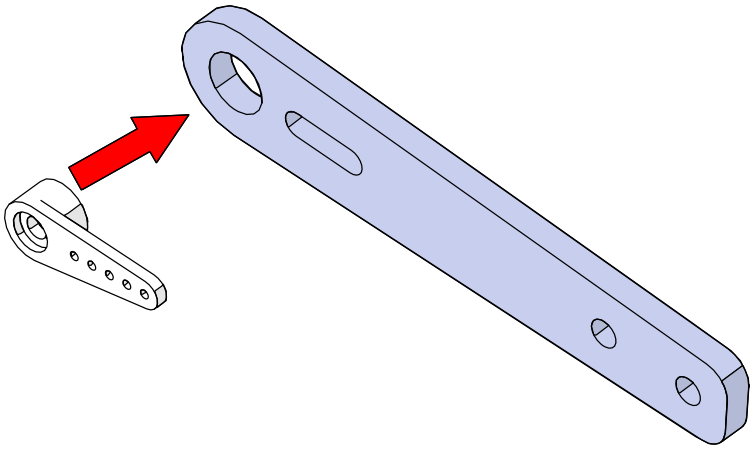
- M2x10mm bolt (S5)



- M2 nut (S3)



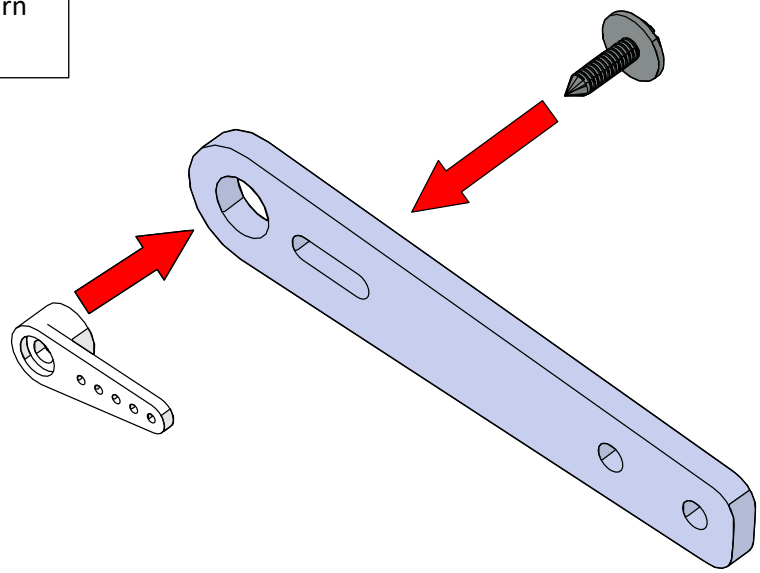
- Arm (R8)
- Servo horn (C9)



Note: Line up servo horn with arm slot and insert horn into hole as shown

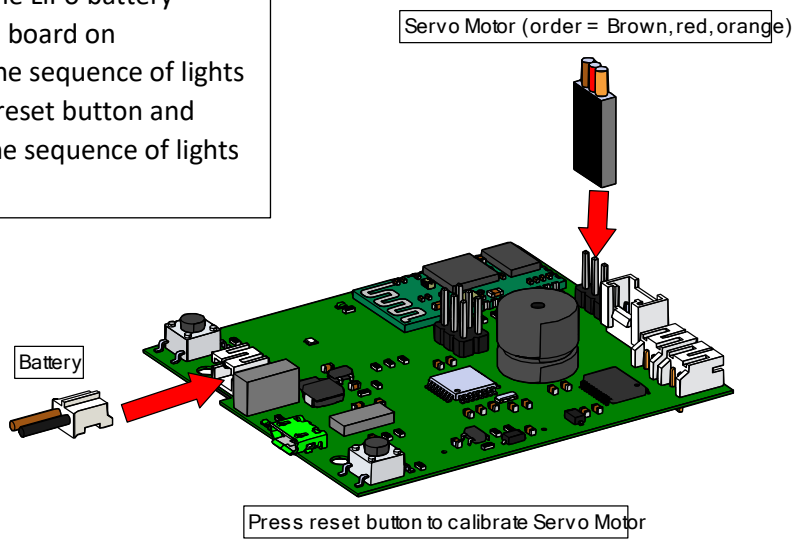
Note: Servo washer screw cuts a thread into the servo horn when screwed in

- Servo washer screw (S2)



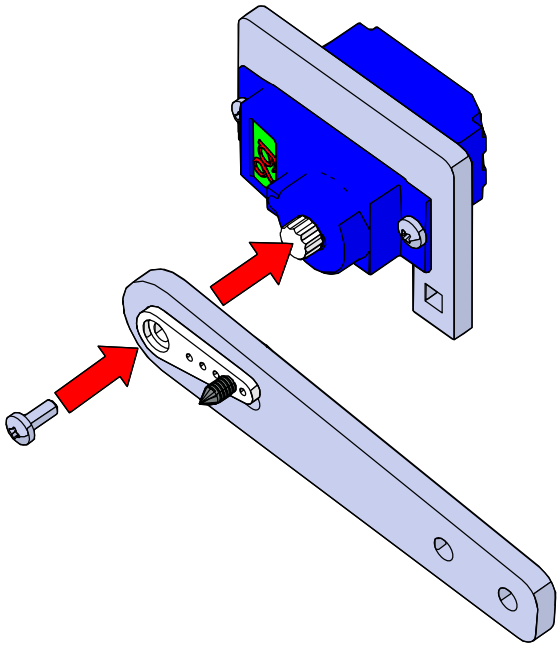
Calibration process:

1. Connect the servo motor
2. Connect the LiPo battery
3. Power the board on
4. Wait for the sequence of lights
5. press the reset button and wait for the sequence of lights again

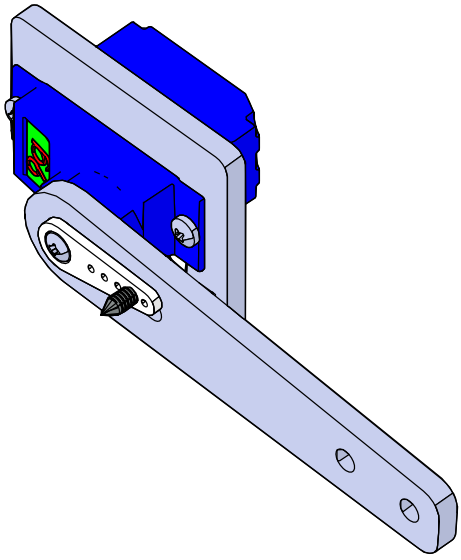


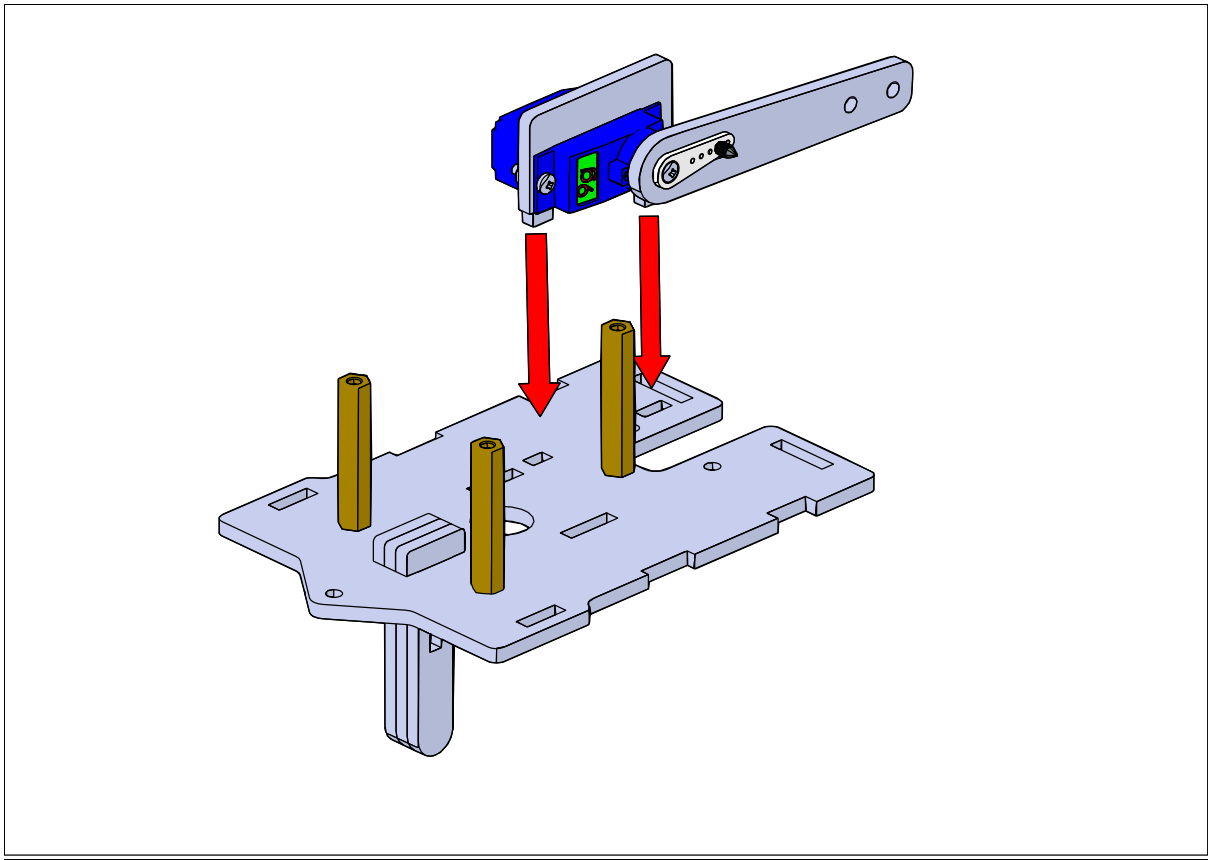
- Control board (C4)
- Servo motor (C5)
- LiPo battery (C1)

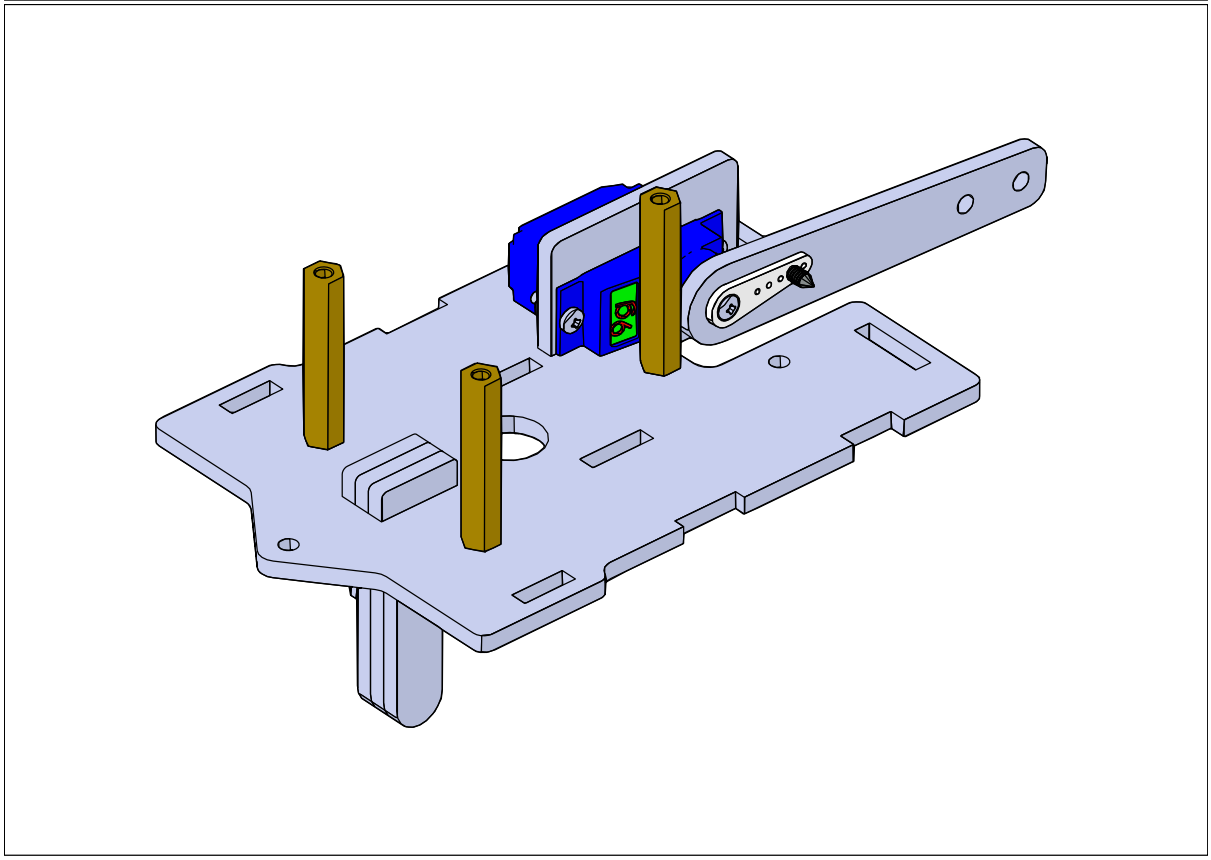
- Servo screw (S1)



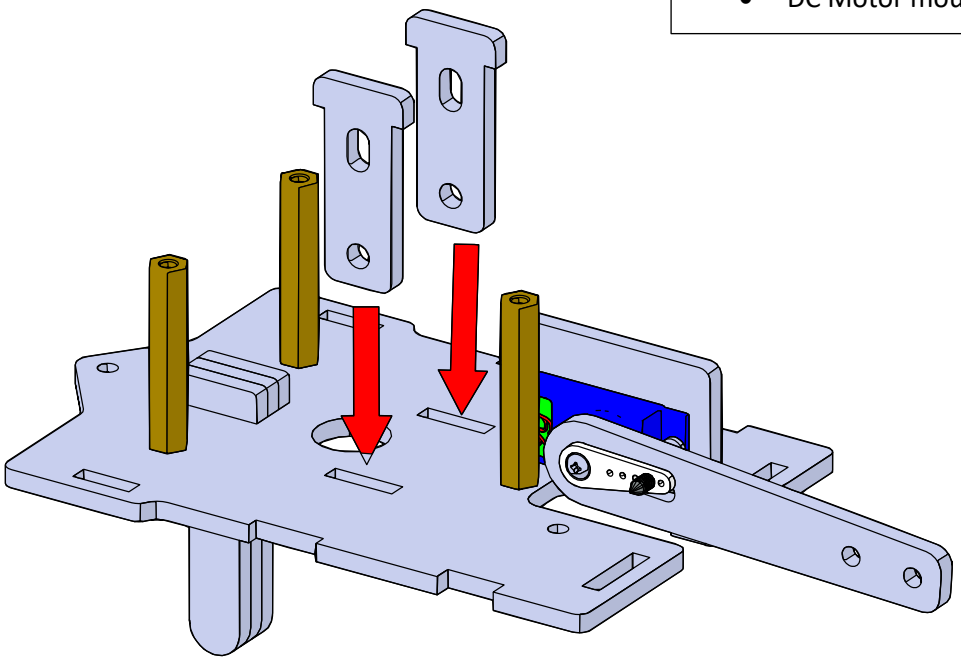
Note: Ensure the servo motor shaft is pushed all the way into the servo horn

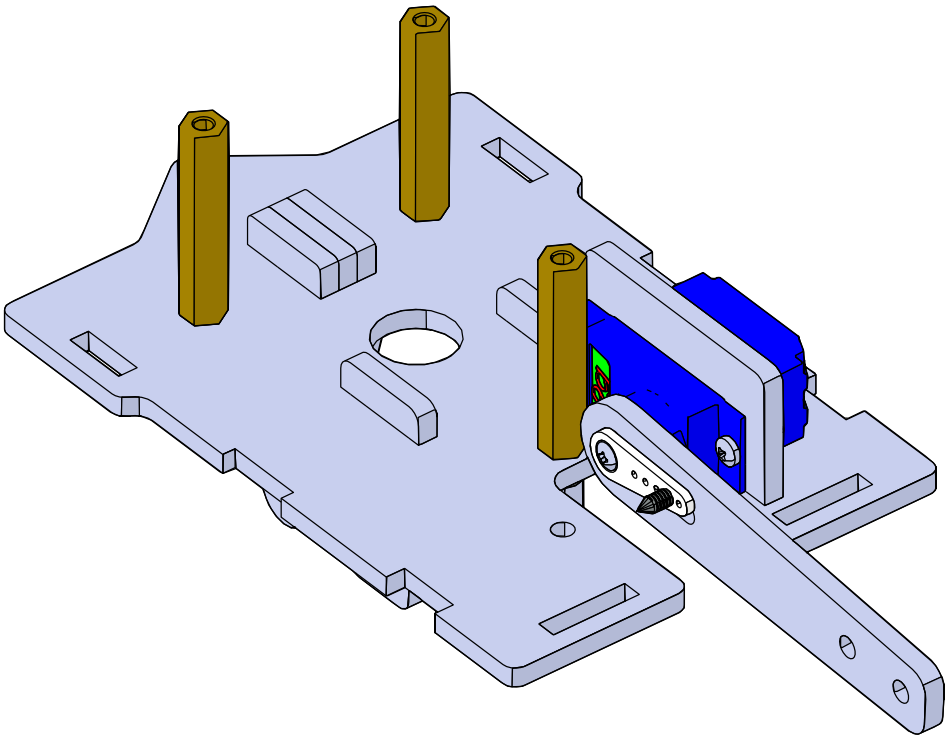




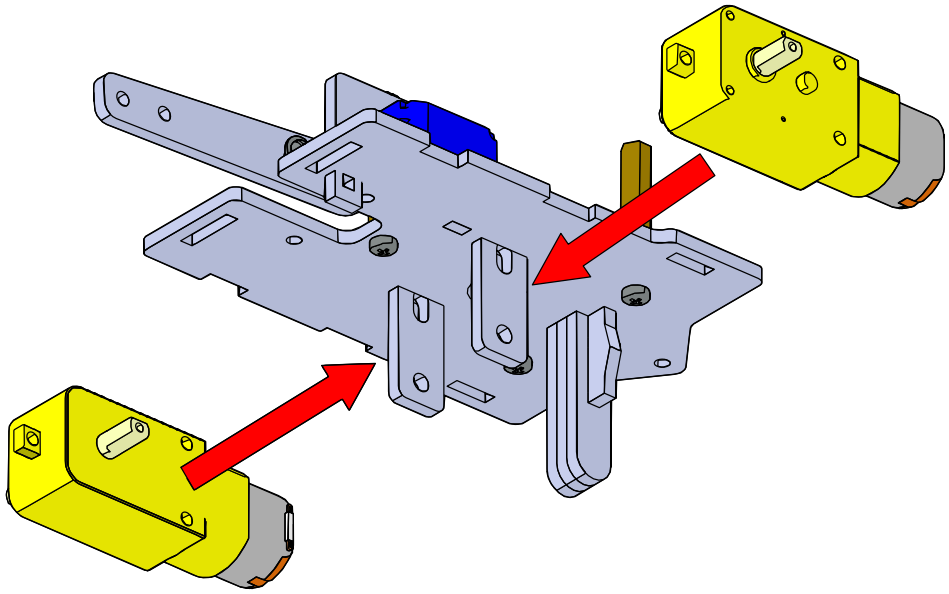


- DC Motor mount (R11)

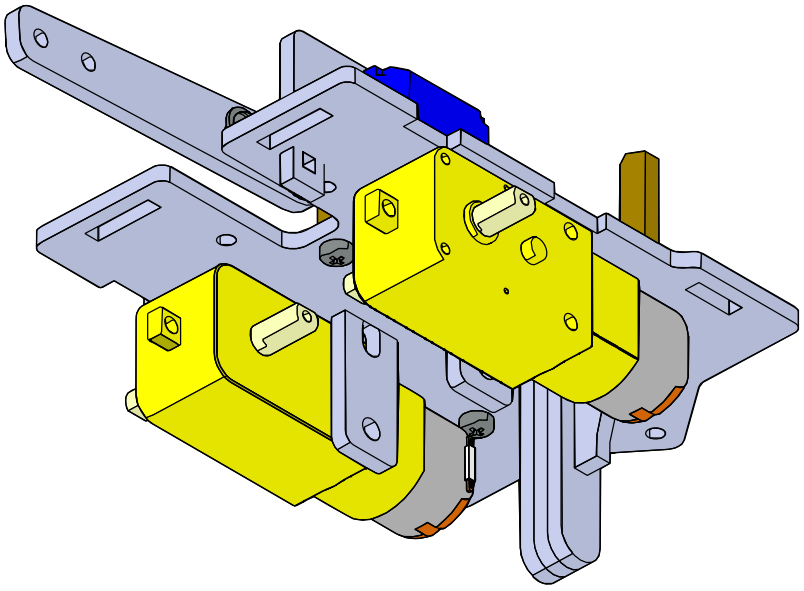




- Dc Motor (C2)

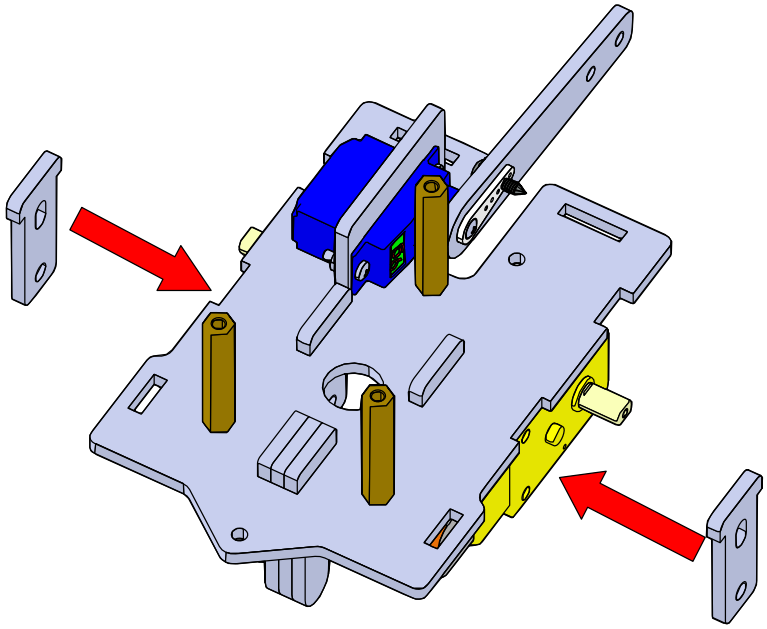


Note: Wires should be positioned on the inside of robot

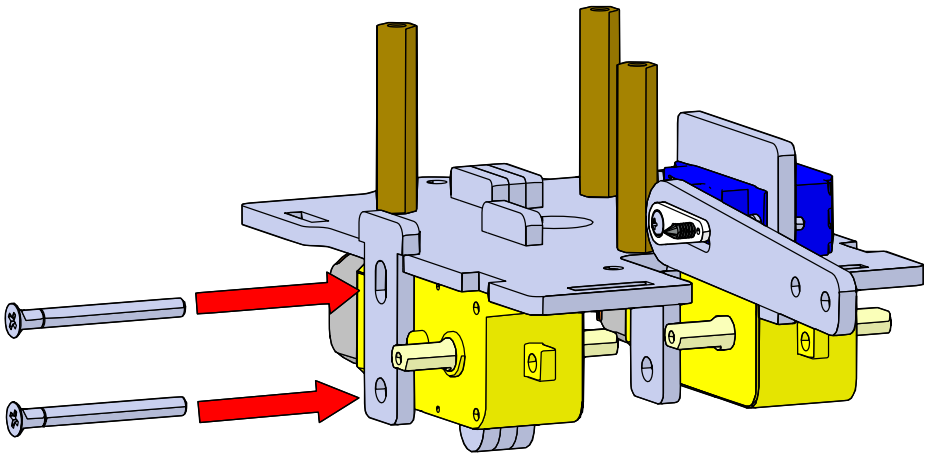


Note: Motor wires should be placed through centre hole

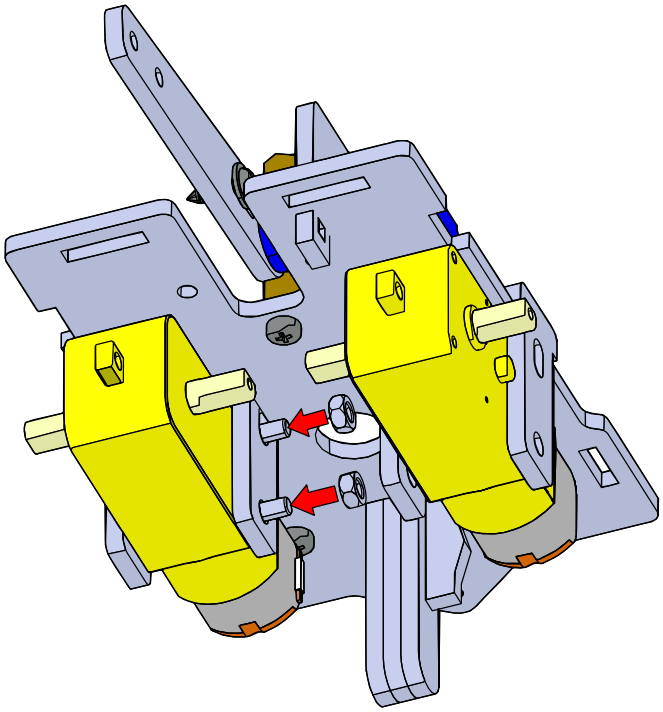
- DC Motor mount (R11)

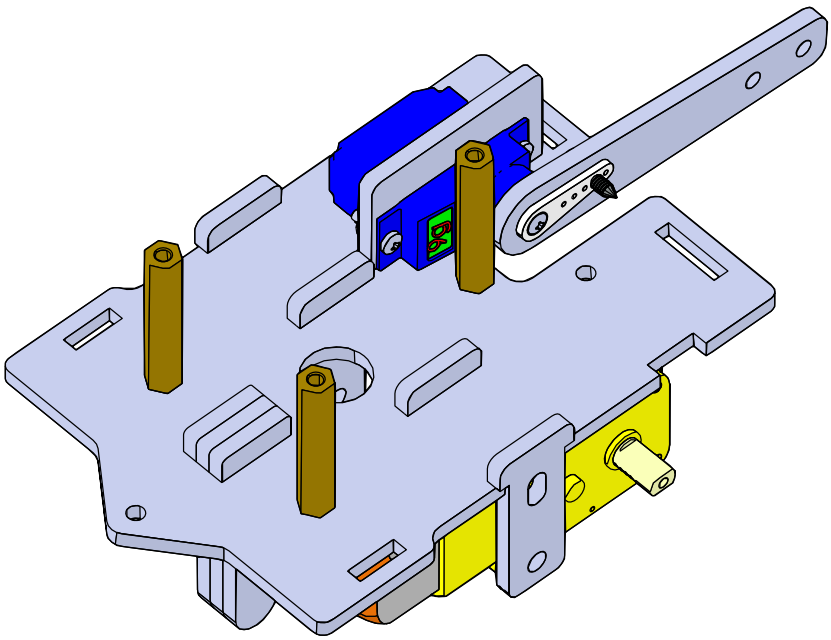


- M3x30mm flat head bolt (S7)

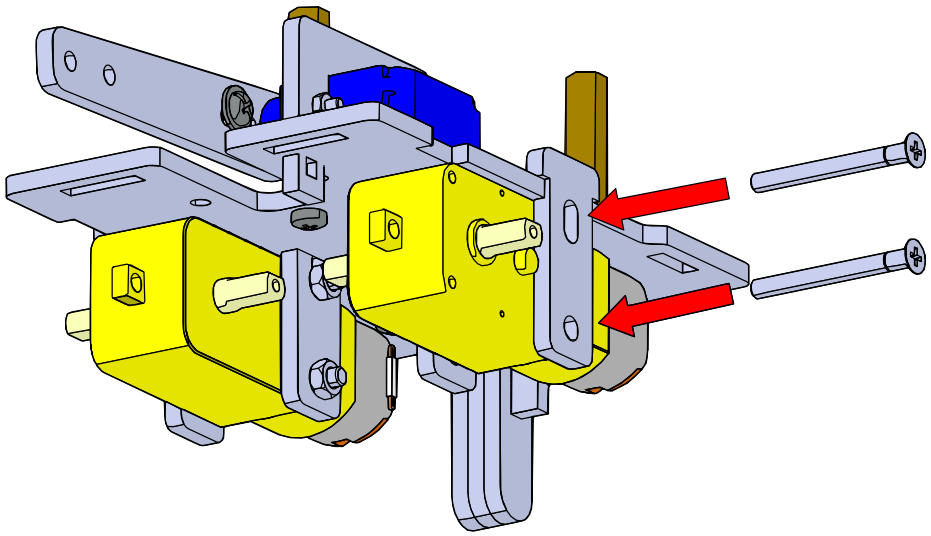


- M3 nut (S4)

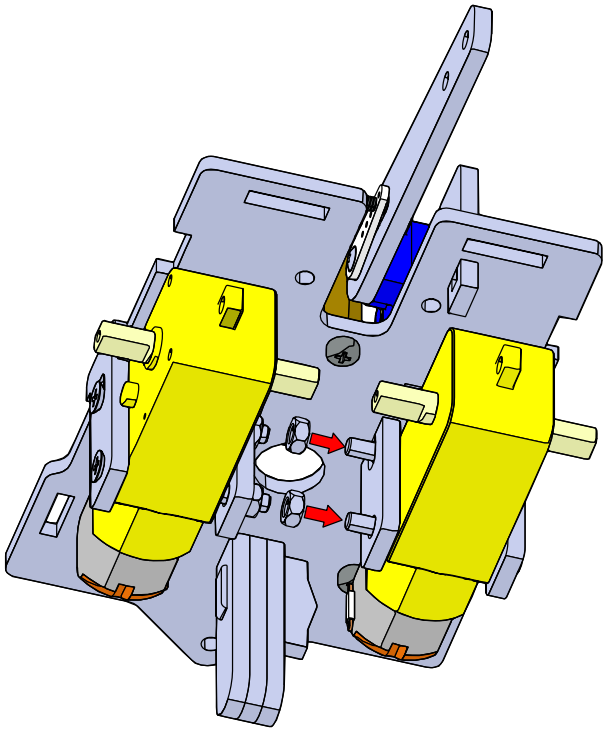


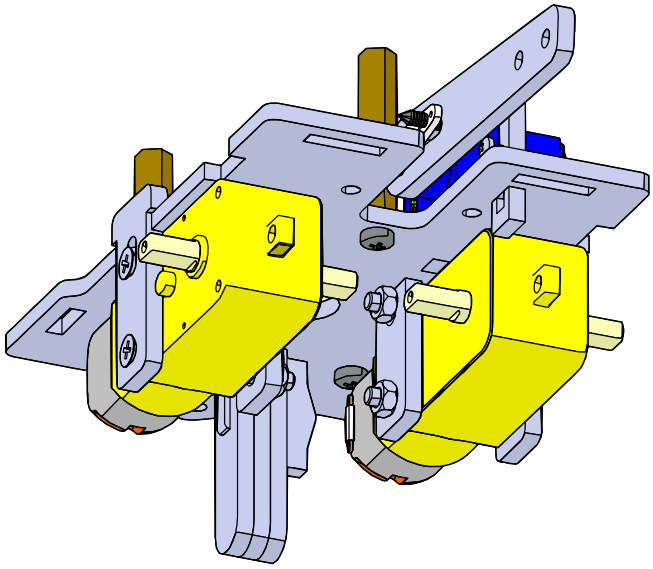


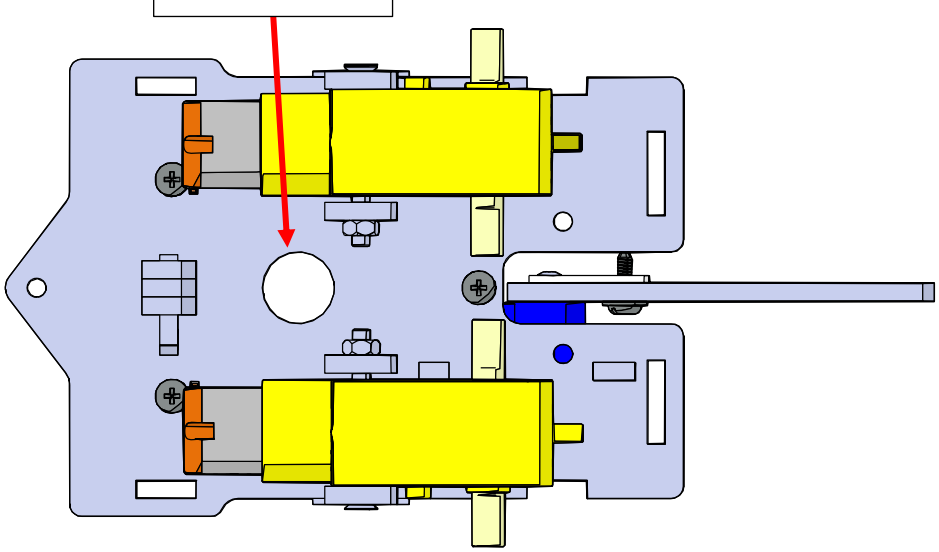
- M3x30mm flat head bolt (S7)



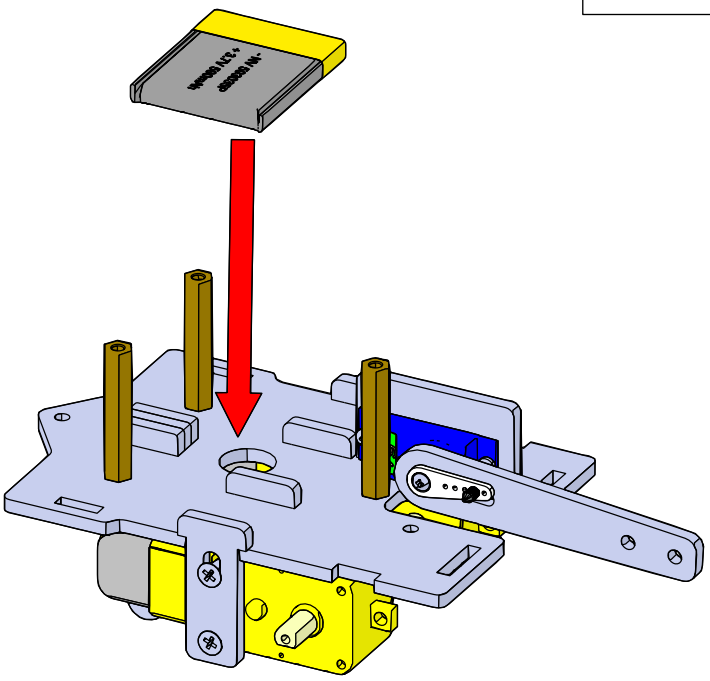
- M3 nut (S4)

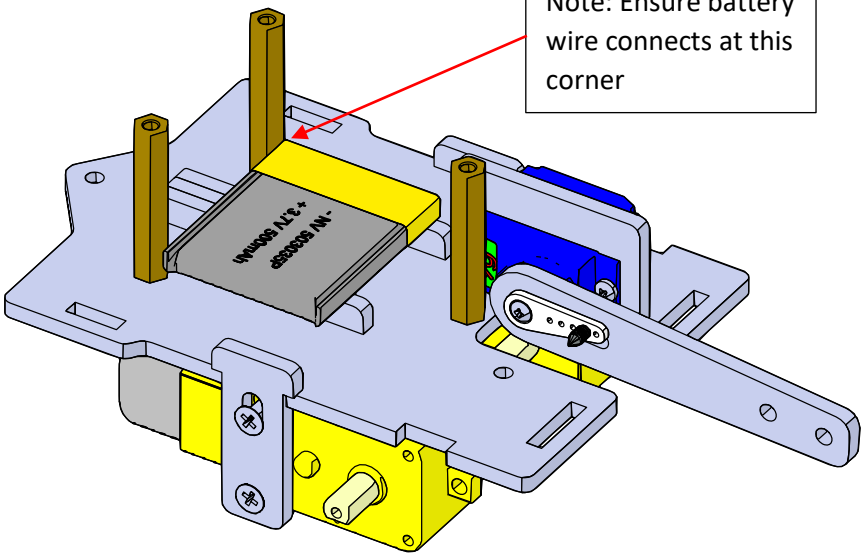




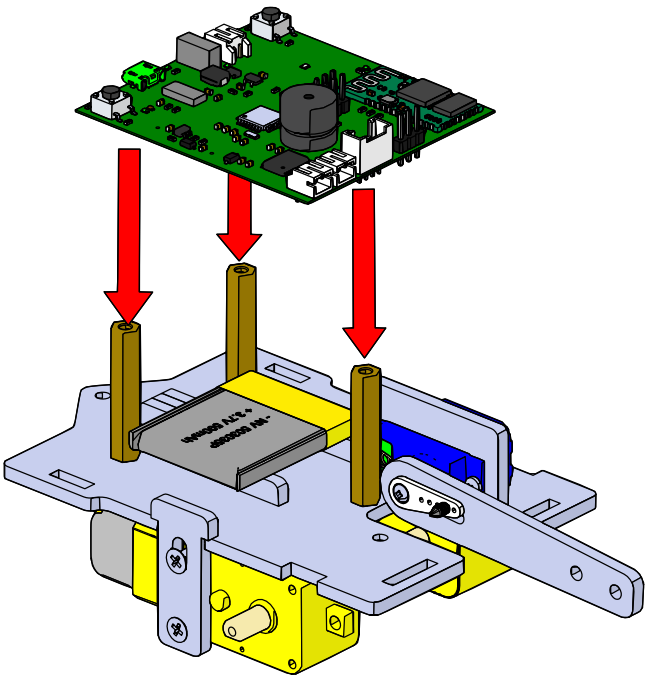


- LiPo battery (C1)

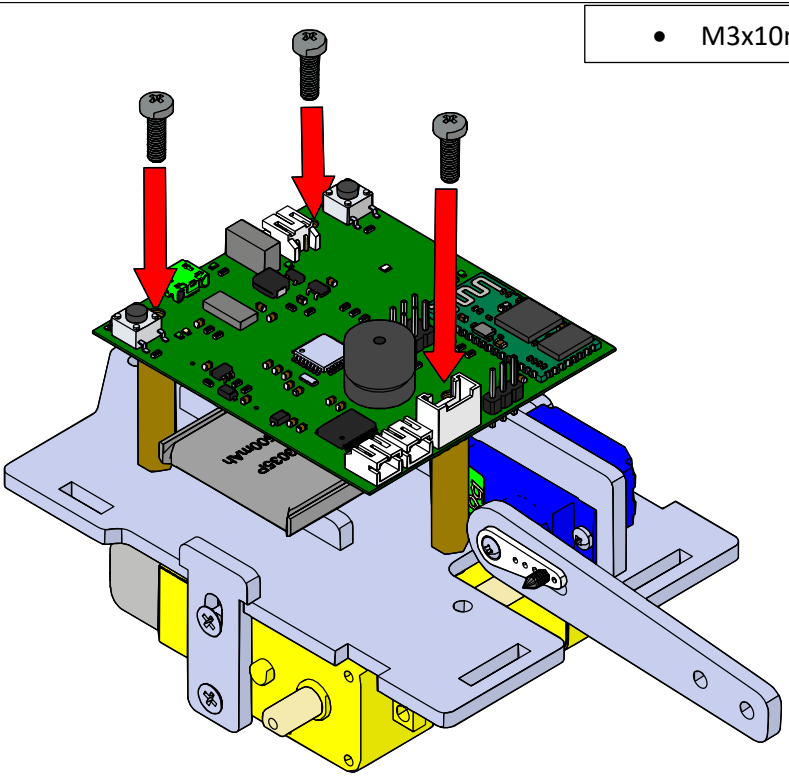


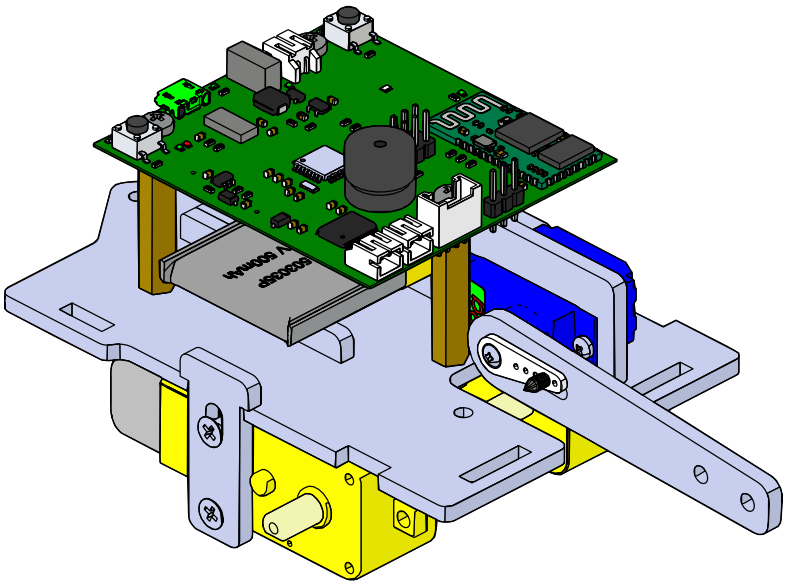


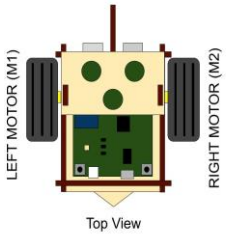
- Control board (C4)



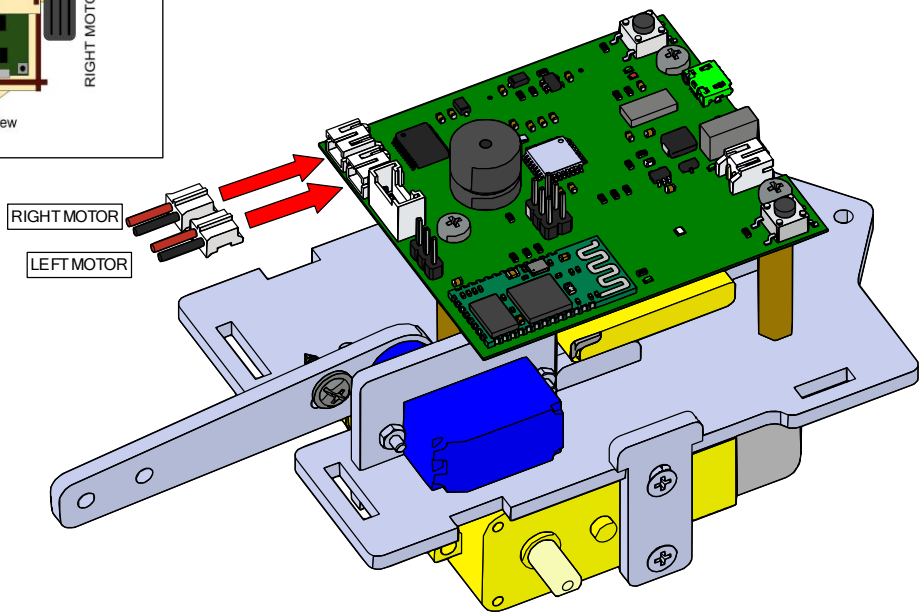
- M3x10mm bolt (S6)



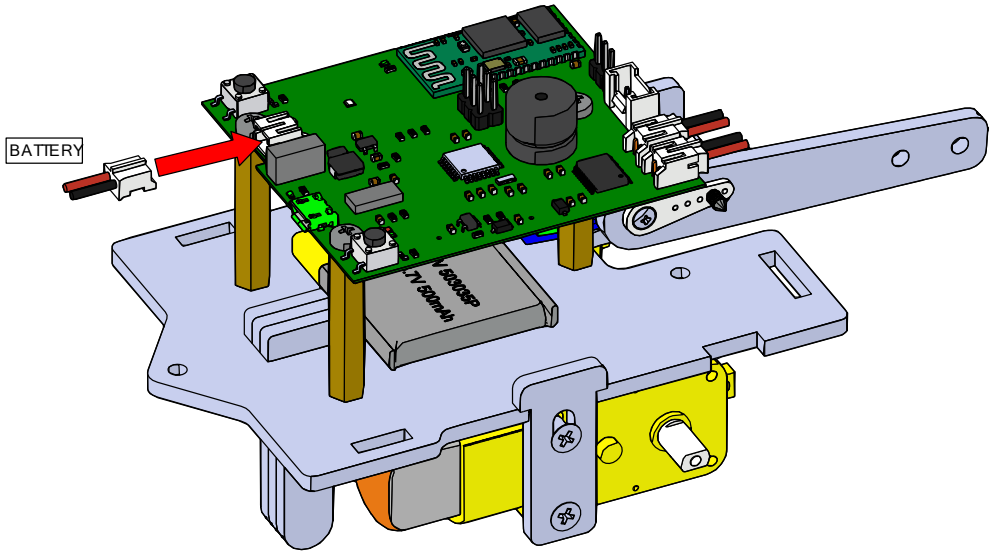




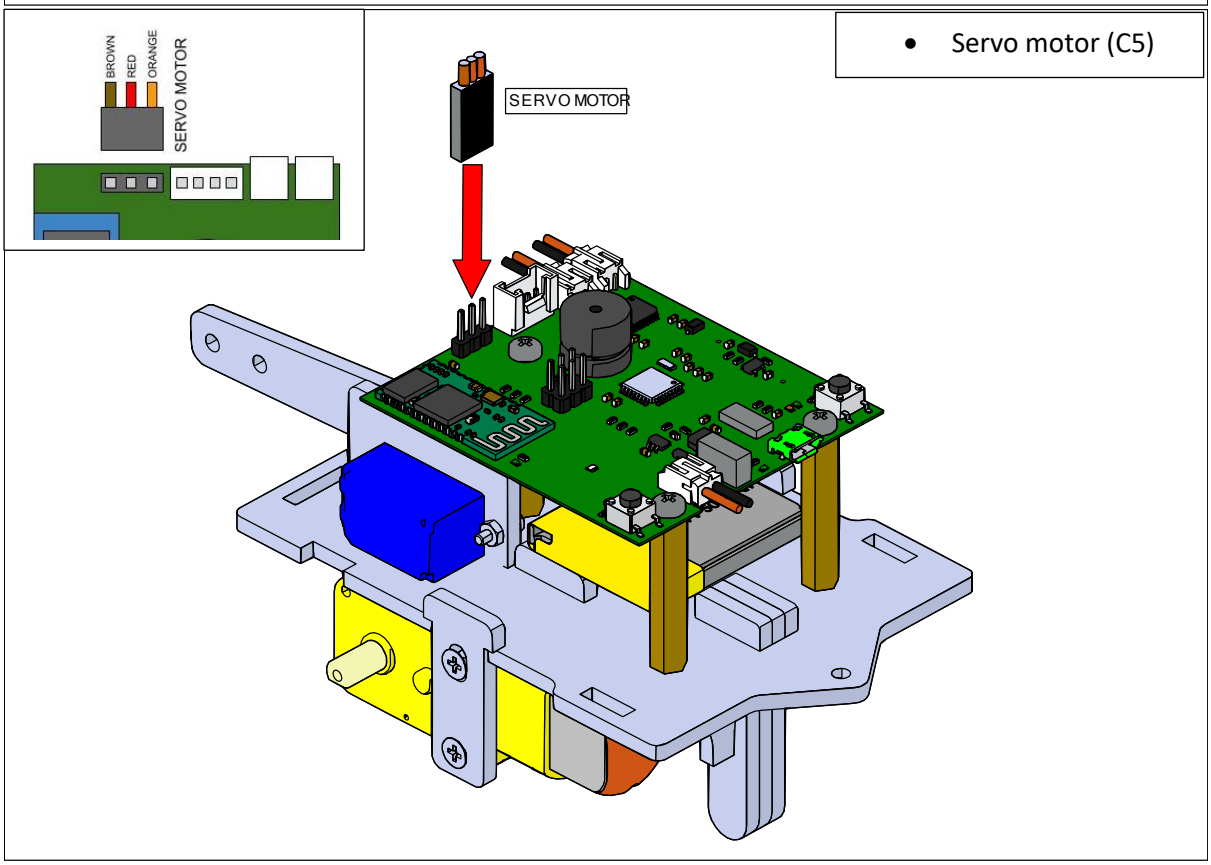
- Dc Motor (C2)



- LiPo battery (C1)

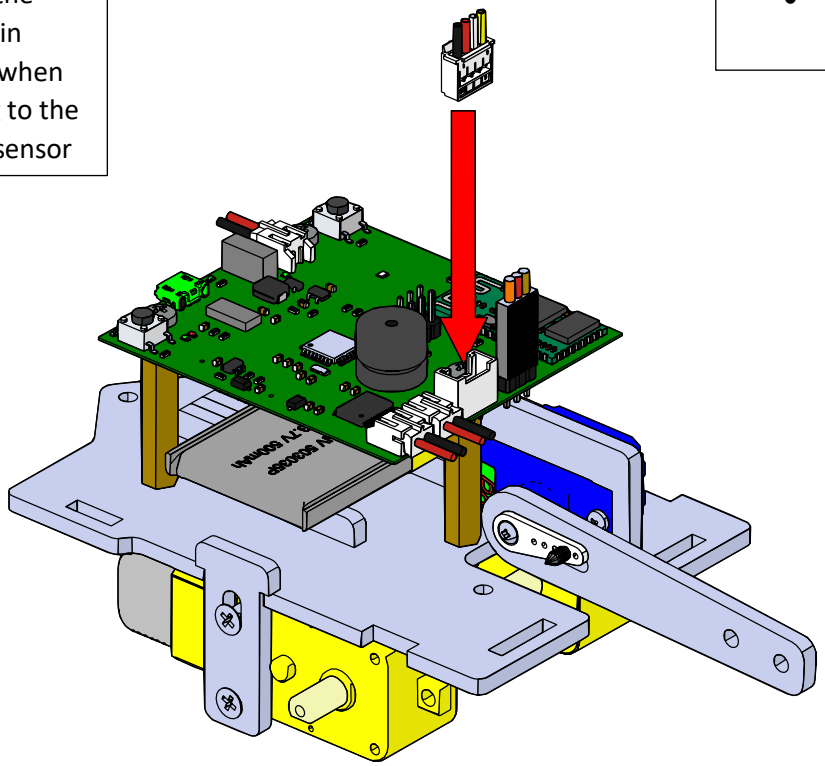


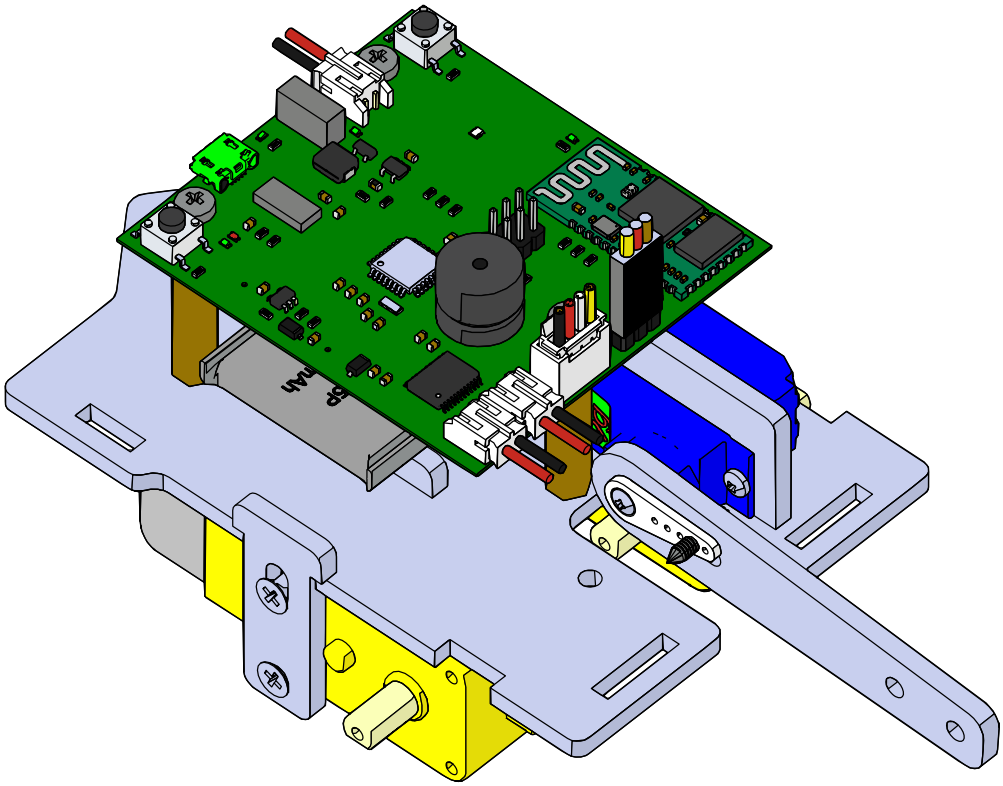
- Servo motor (C5)



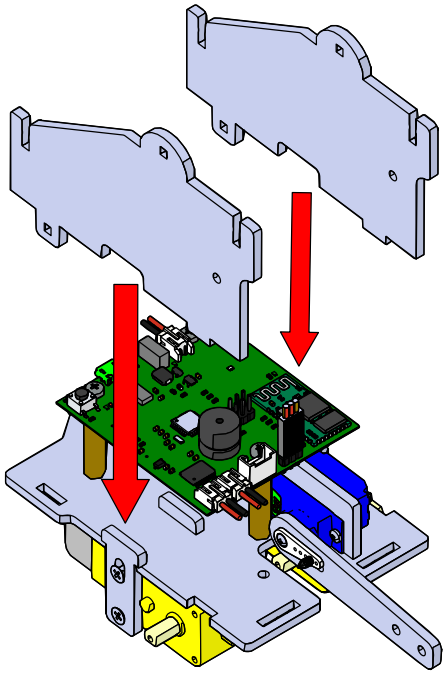
Note: Use the Grove-to-pin connector when connecting to the ultrasonic sensor

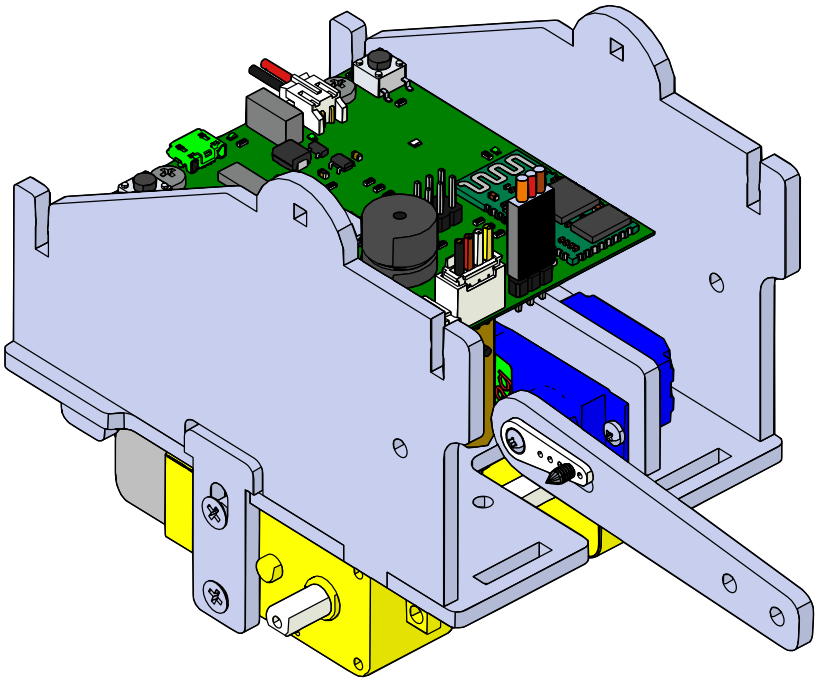
- Grove-to-pin connector (C8)



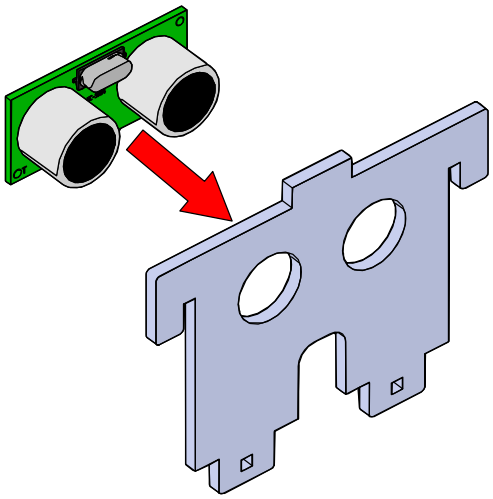


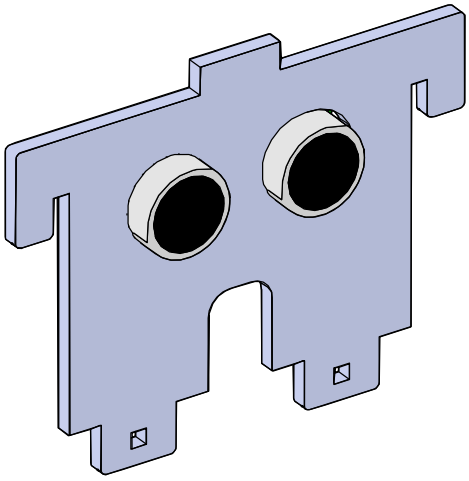
- Side (R4)



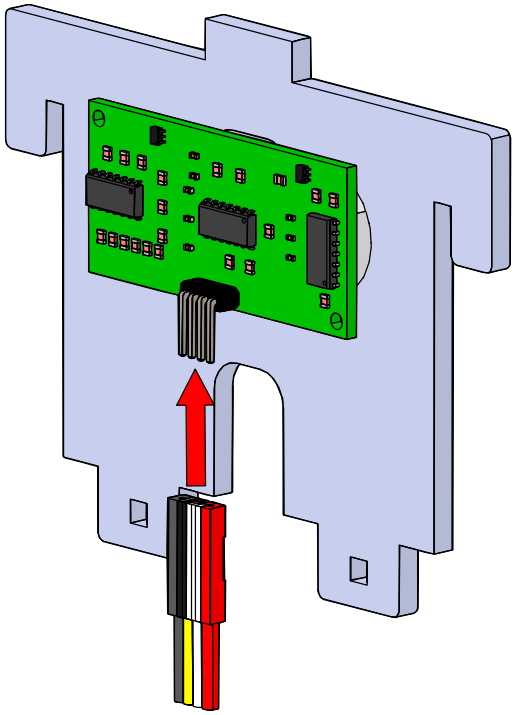


- Front (R3)
- Ultrasonic sensor (C6)

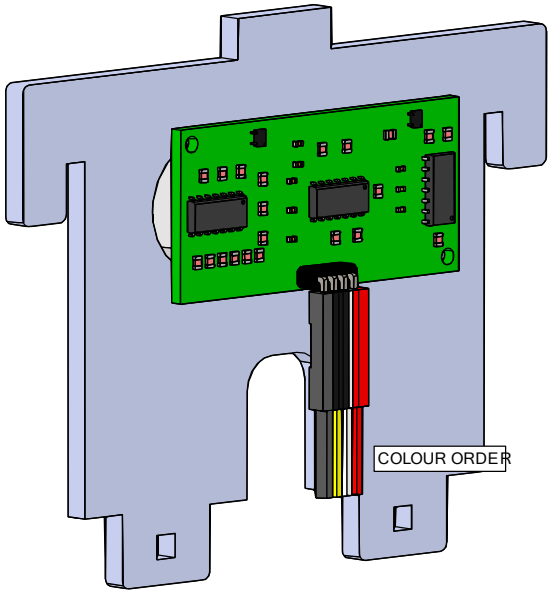




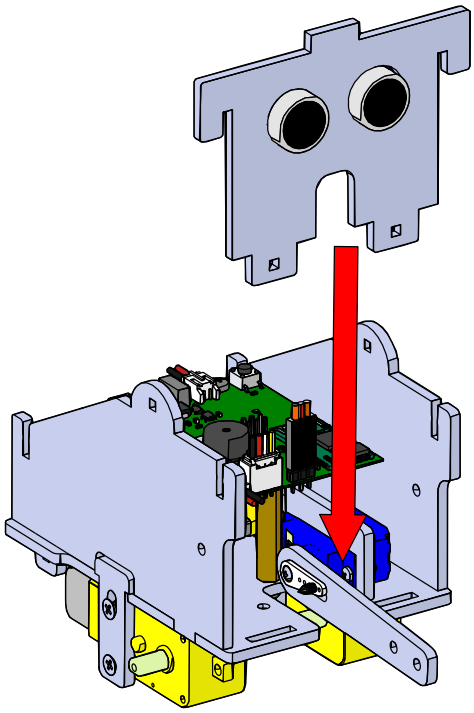
- Grove-to-pin connector (C8)



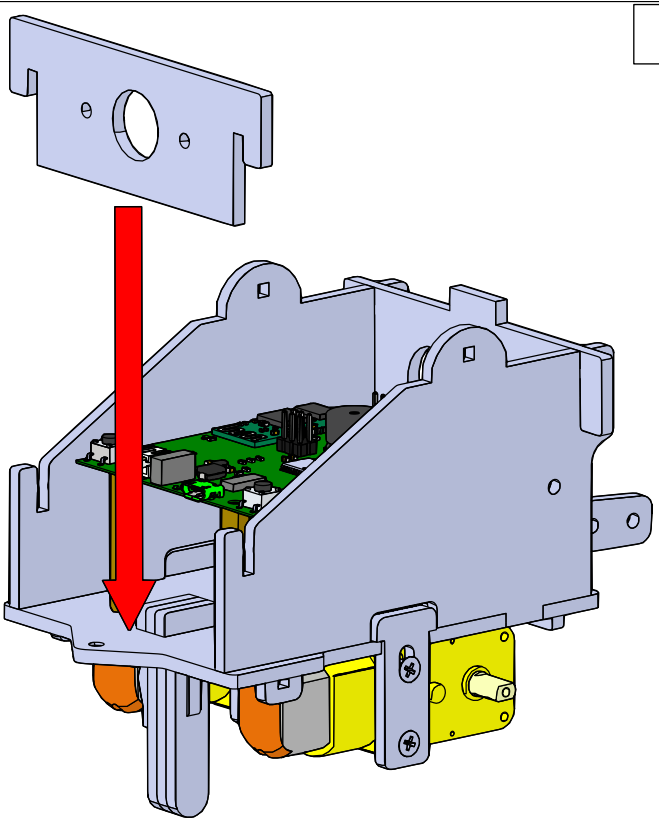
Note: Do not use the Grove-to-Grove connector (C3). This has been provided as an expansion cable for other sensor types

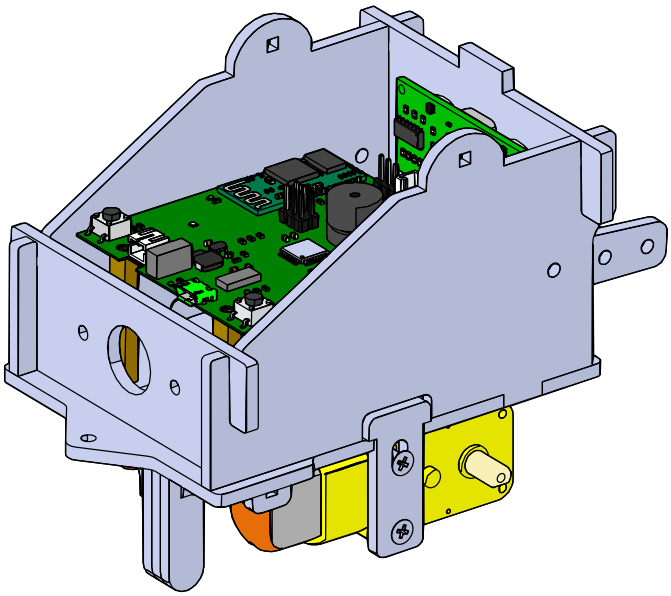


Note: Ensure the pins are connected in the correct colour order as shown in the image

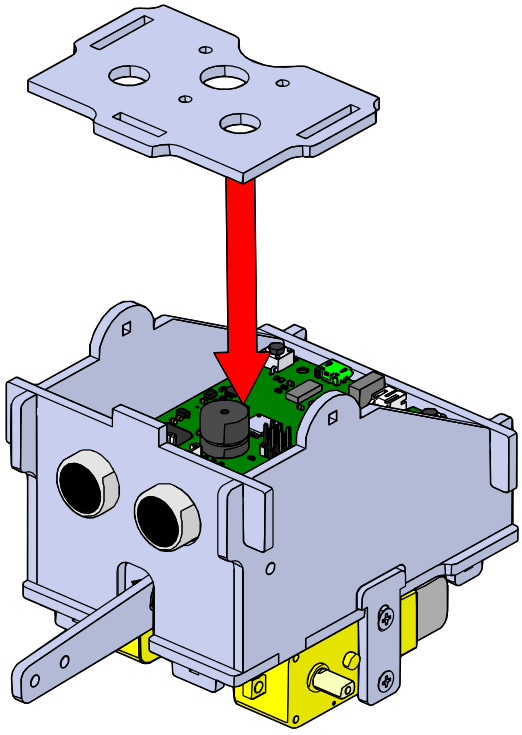


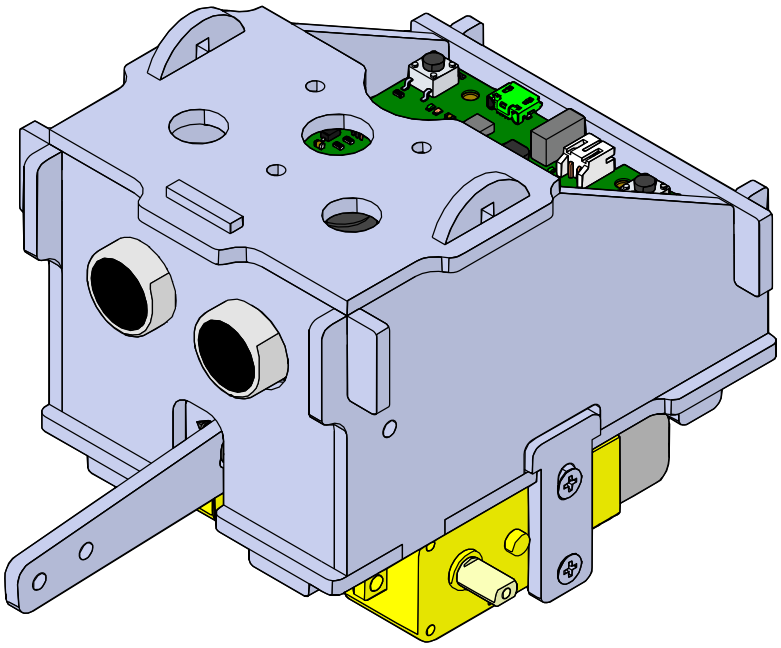
- Back (R2)



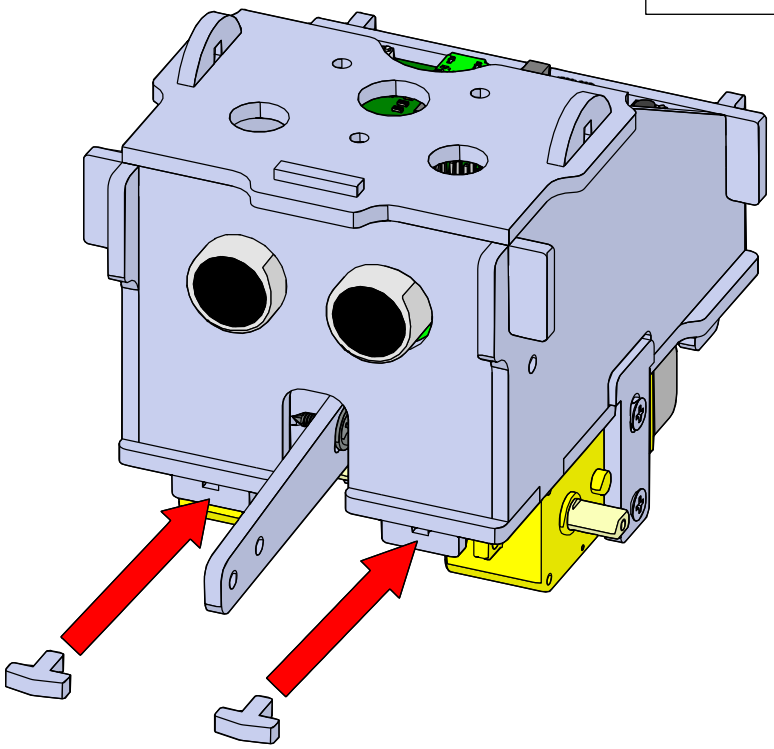


- Roof (R5)

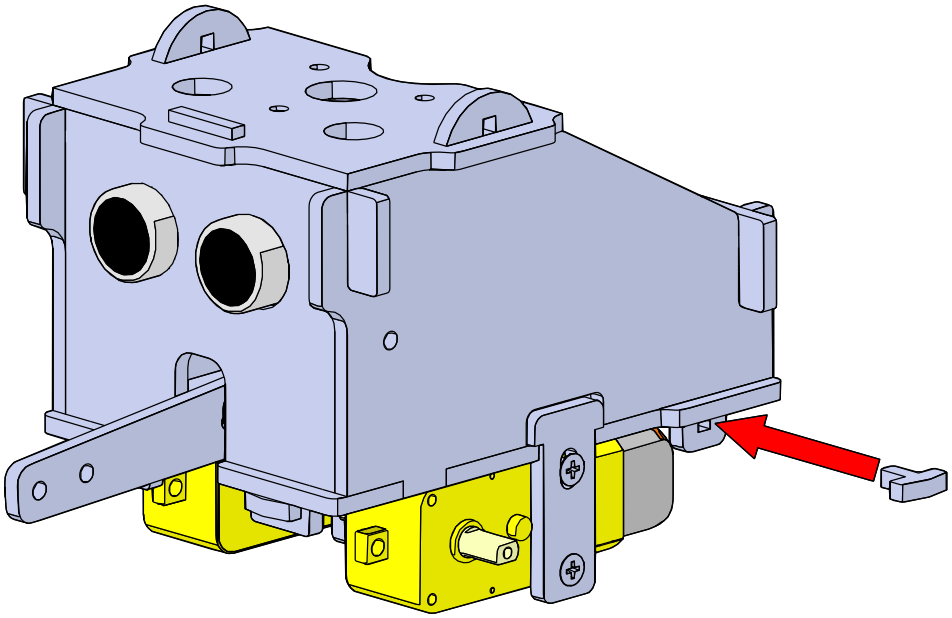




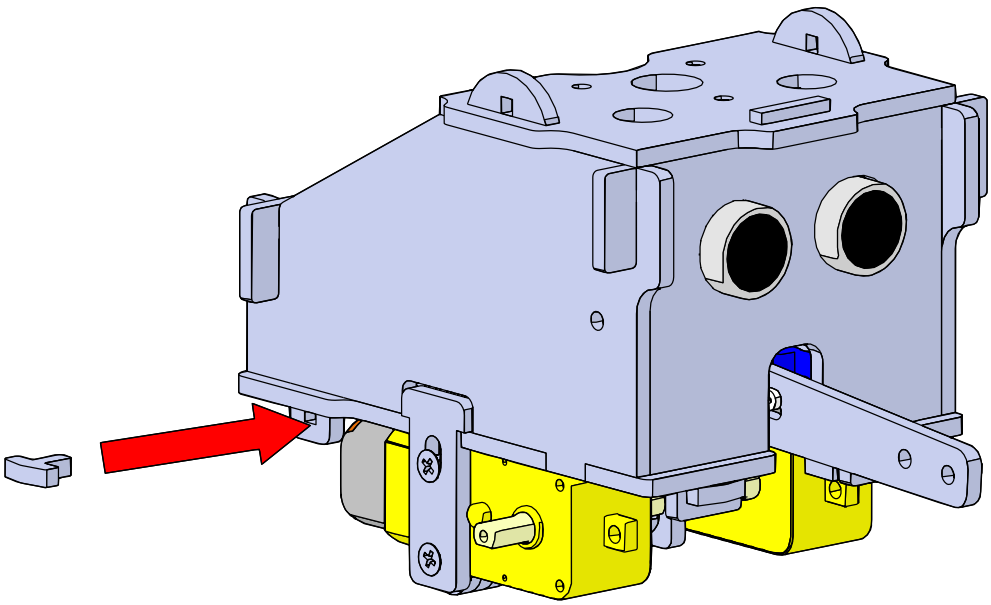
- General pin (R6)



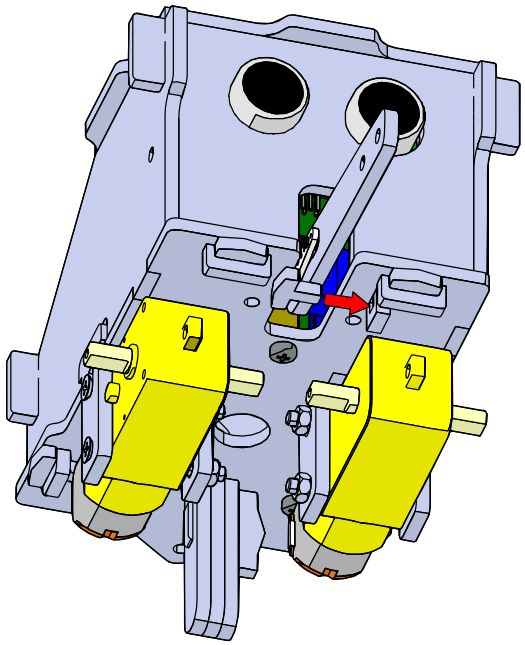
- General pin (R6)

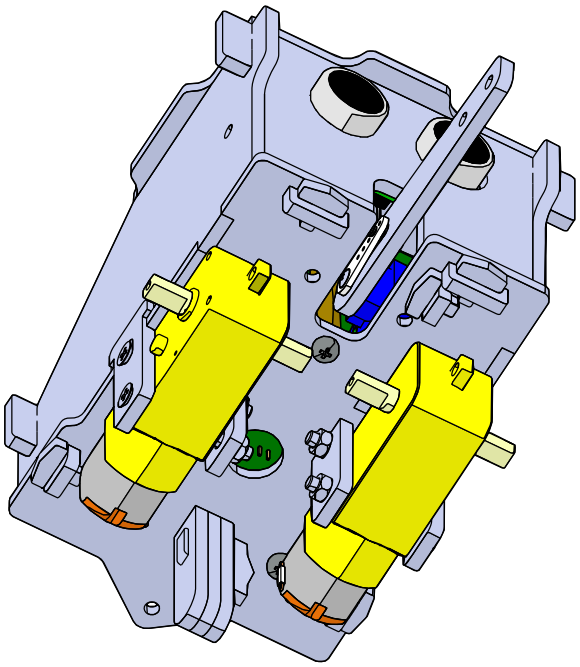


- General pin (R6)

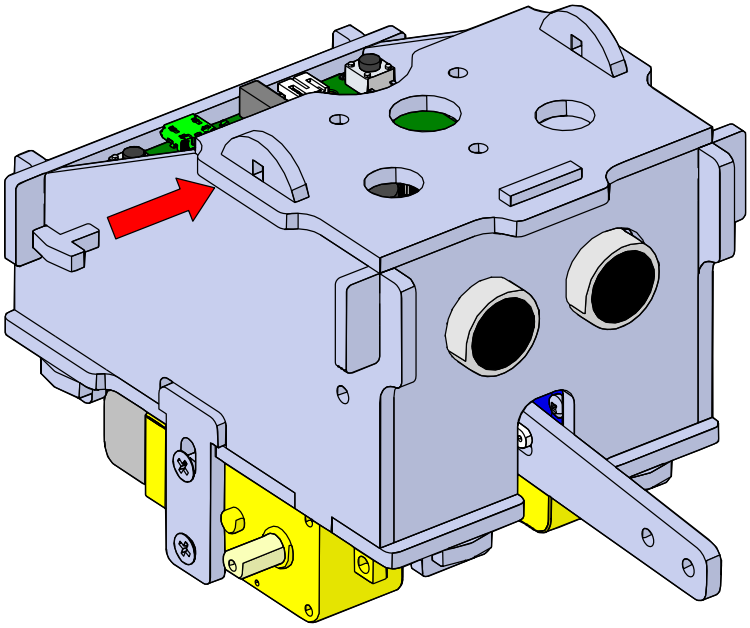


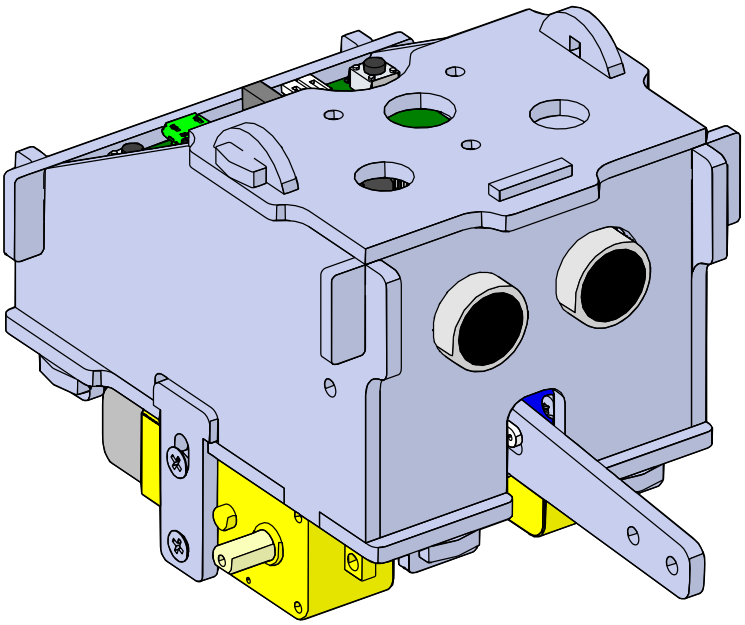
- General pin (R6)



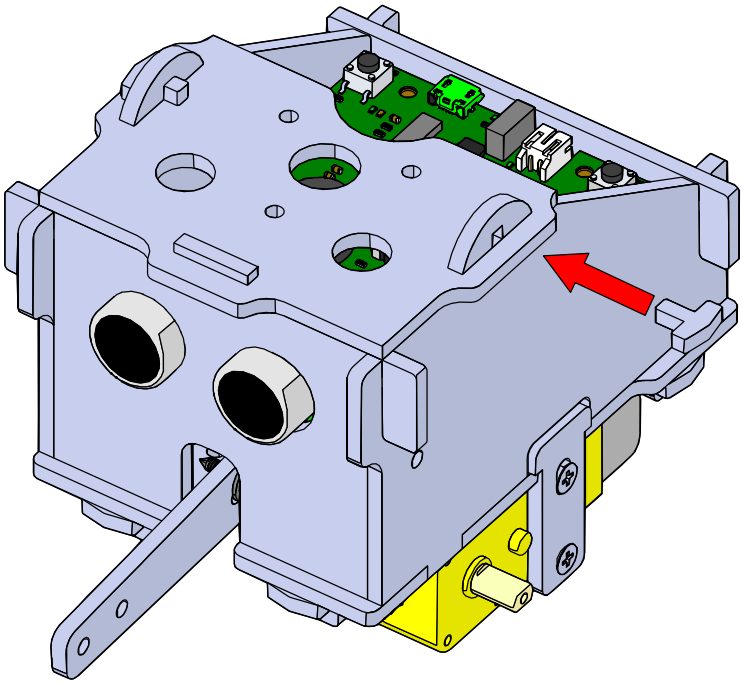


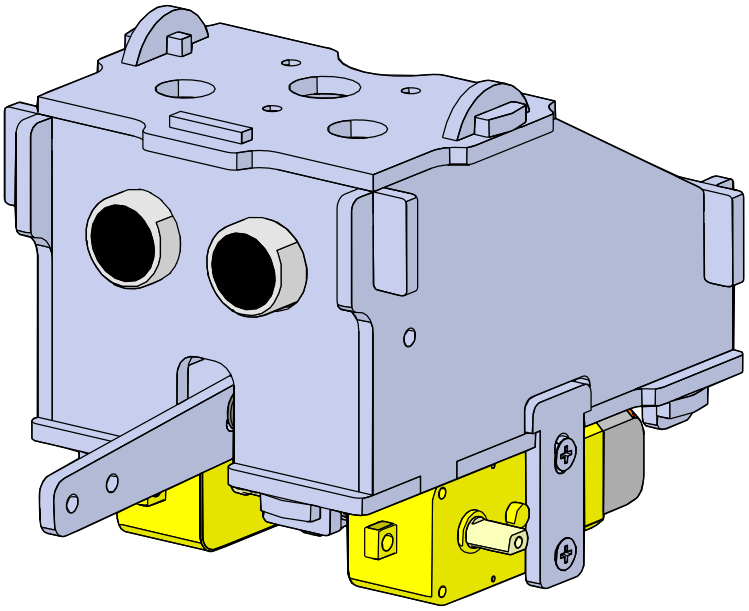
- General pin (R6)



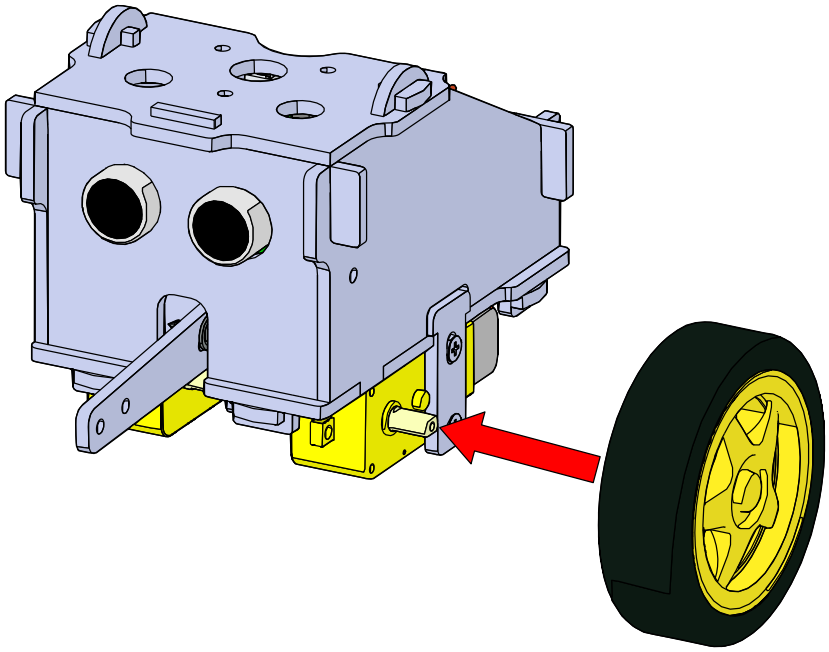


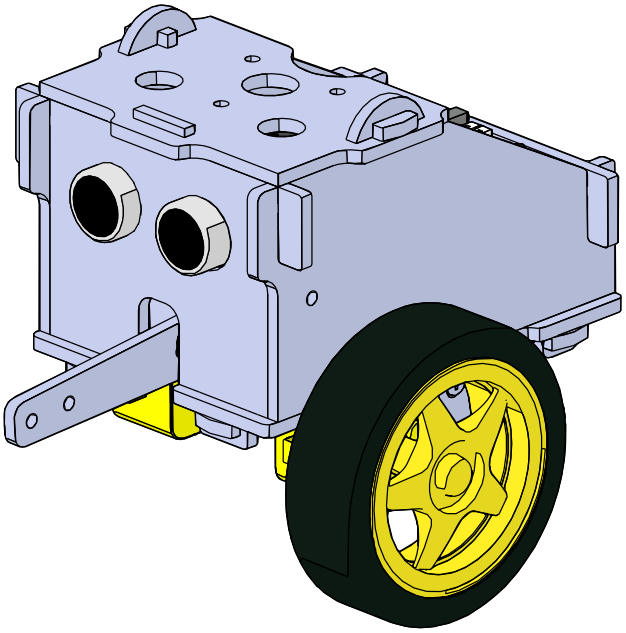
- General pin (R6)



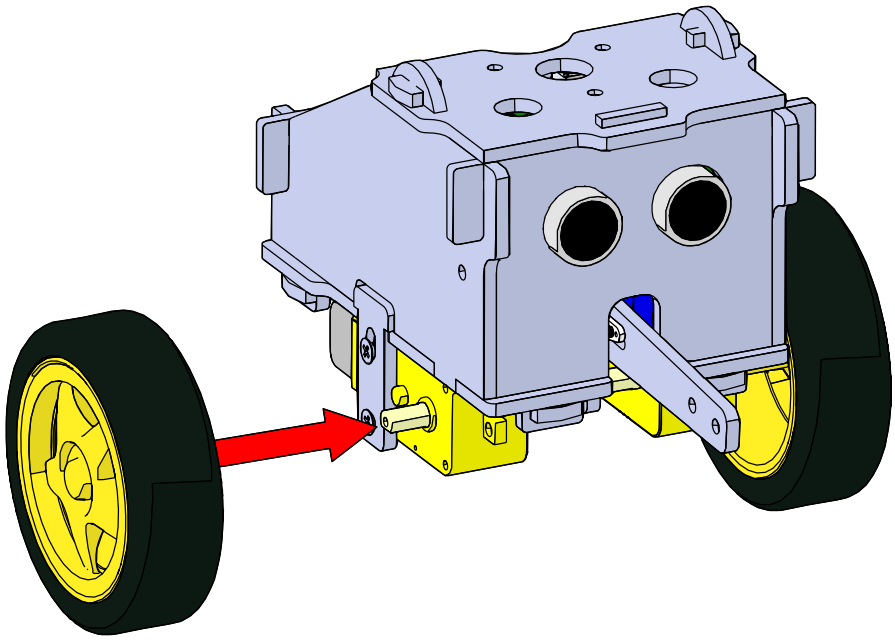


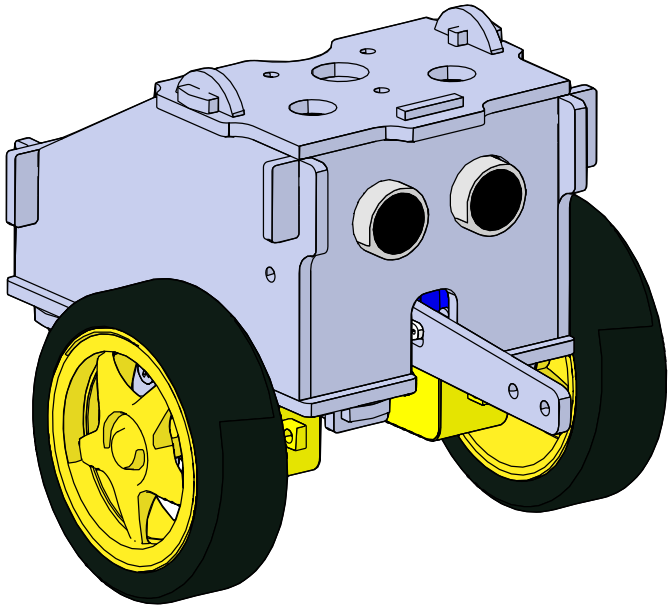
- Wheel (C7)

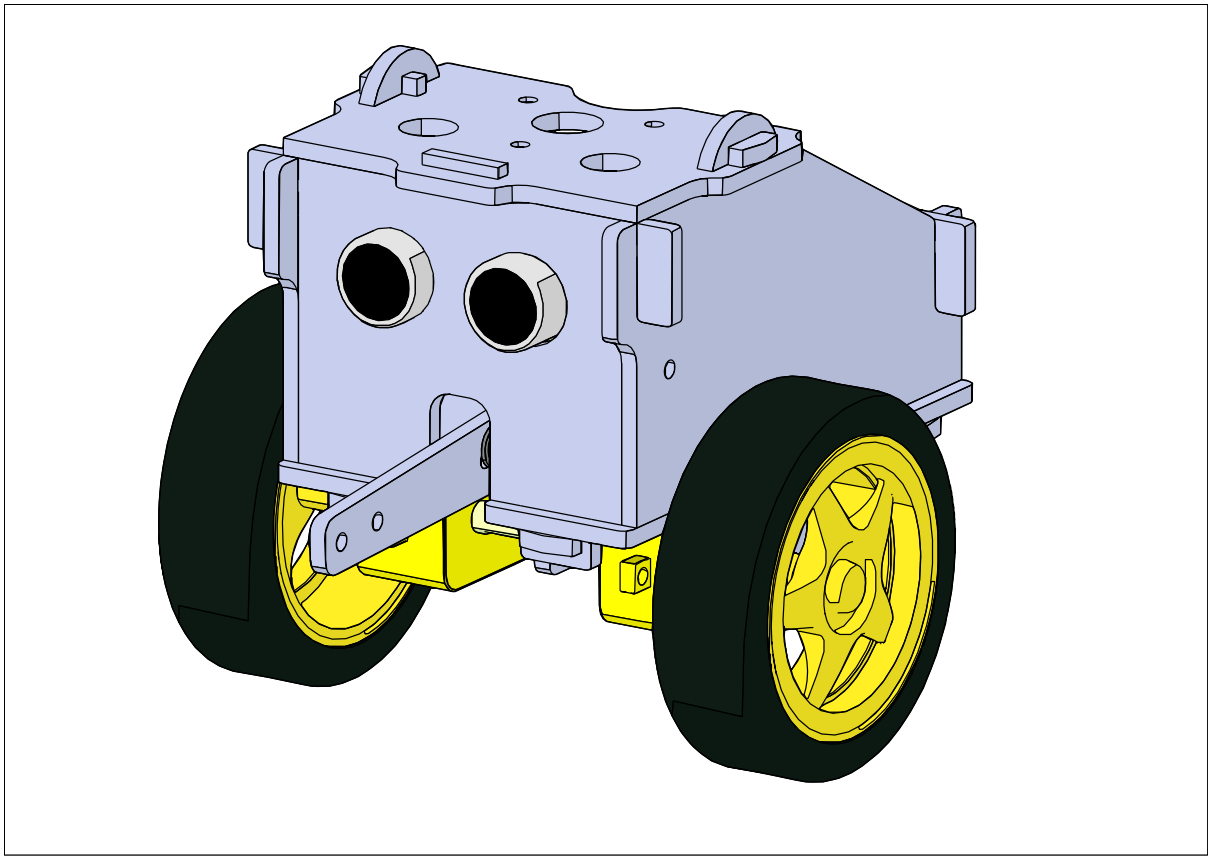




- Wheel (C7)







Well done! Your MiiA.bit is now complete and ready to be programmed. To continue your robotics journey please go to our website, www.miiabot.rd-9.co.za

Alternatively, all relevant information is contained in our MiiCode Mobile Application which can be downloaded on both the Google Play store and Apple App store. If you are having any issues or difficulty in assembling the kits, please do not hesitate to contact us at info@rd-9.co.za