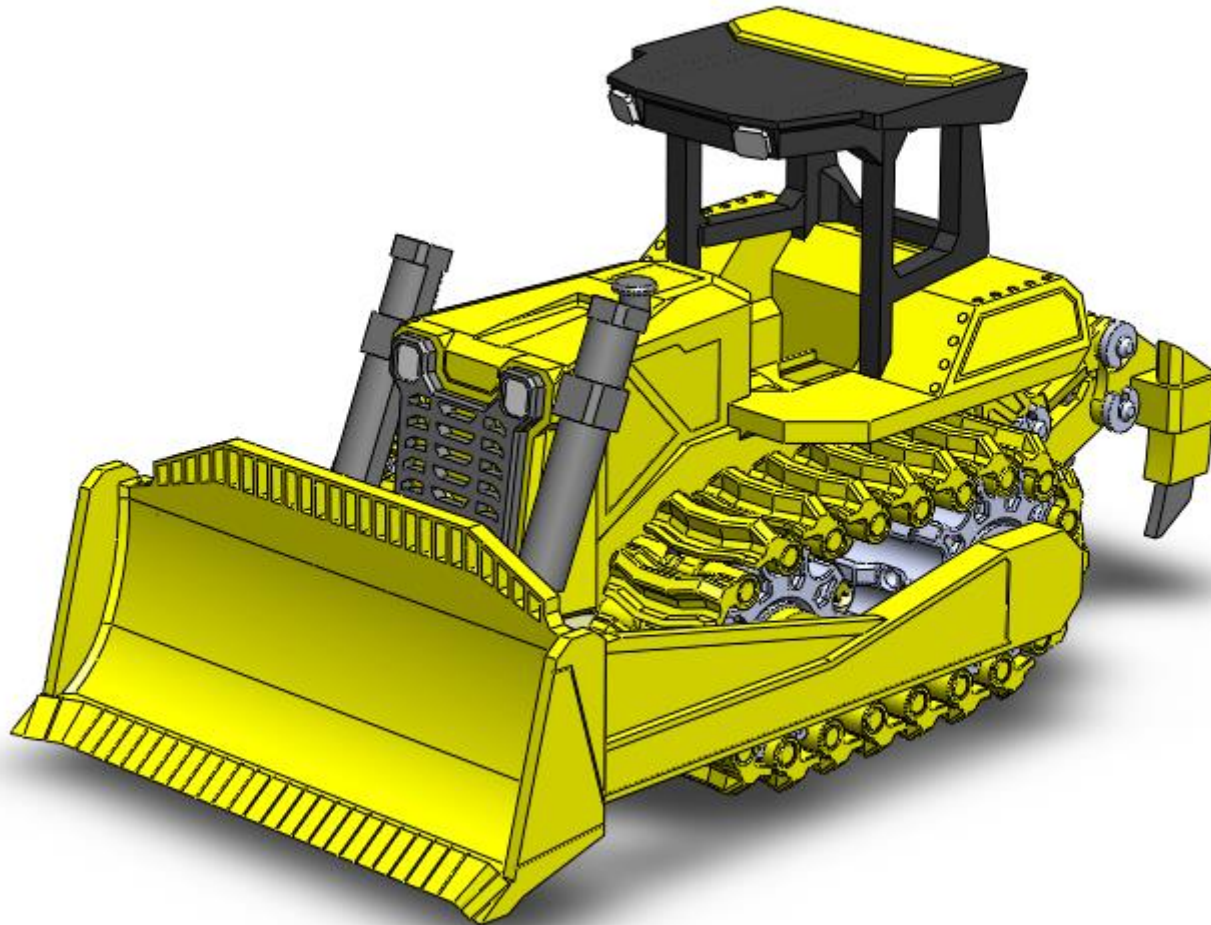


**Cyber Brick RC Bulldozer Assembly Guide**  
**(Full Version with Ripper)**  
R0 - 2025|09|29 - MottN



# Instructions Overview

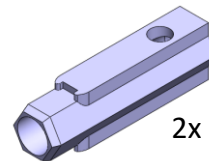
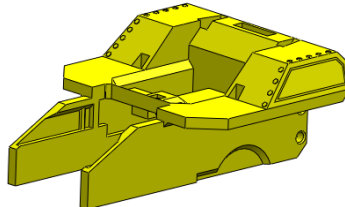
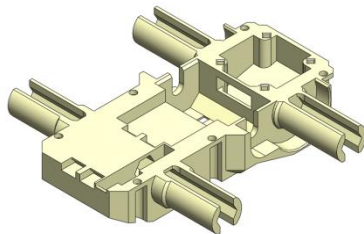
- Initial Notes
- Tools & Consumables
- Building Instructions
  1. Electronics connect and test
  2. Gearbox Assemblies
  3. Chassis Assembly
  4. Body Assembly
  5. Cab Assembly
  6. Chassis to Body Assembly
  7. Track Assembly
  8. Blade Assembly
  9. Ripper Assembly
- Additional Information
  1. Charging
  2. Controls
  3. Troubleshooting

# Initial Notes

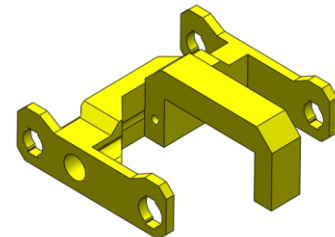
- Please See the model page for:
  - For full list of required hardware
  - Printing recommendations and print profile

# Initial Notes

- Before Beginning assembly:
  - Test print-in-place moving parts (tracks and cogs/wheels) to ensure parts move easily and are not sticky or seized.
    - High friction in these components will cause the drive system to be overloaded and move slowly.
  - A few parts need supports and/or brims to print. Make sure and remove these before assembling



2x





# Initial Notes

- Before Beginning assembly (continued):
  - Test component fits
    - If screw holes are too loose, self tapping screws may be substituted.
      - M2.5x6 button head screws - > BT3x6 self tapping screws

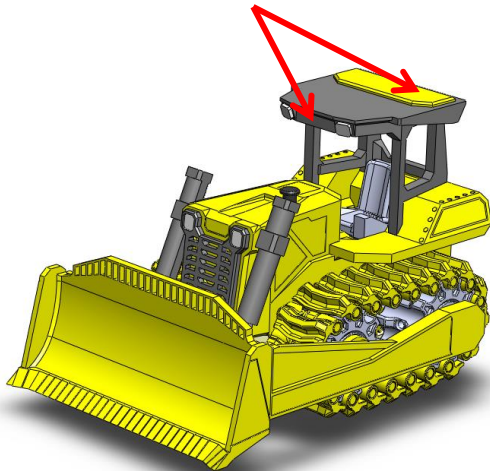
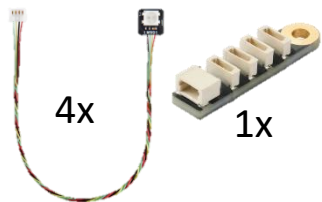


- Some parts are friction fits such as the LED covers into their respective sockets or the shafts in the gearboxes.
  - Make sure that the parts are not so loose that they easily fall out.
  - Parts have been optimized to work well with most filaments and printers, but printer and/or filament calibrations, or sanding etc. may be needed if parts are too loose or too tight.

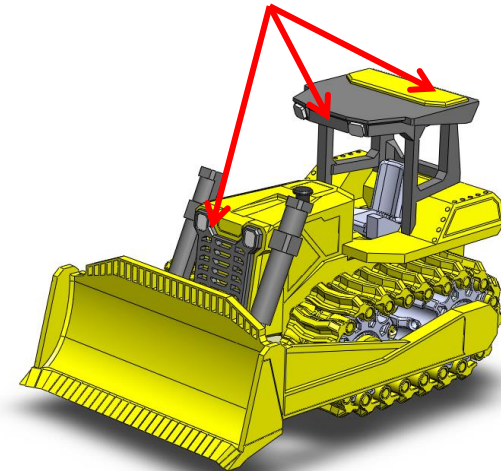
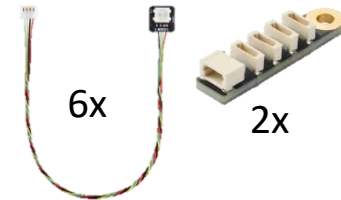
# Initial Notes

- The bulldozer has different configuration files to be used based on which LEDs are installed. Use the Cab lights only (4 lights) configuration if building with only the contents of the beginner kit
- Choose the configuration to load (in the Cyberbrick app) and assemble accordingly.

(Cab LEDs)



(Cab lights + Optional Front lights)



# Tools & Consumables

## Tools

- 1.5mm hex key
  - Use for M2.5 button head screws.
- Small tweezers
  - Useful for attaching and removing small connectors such as those on the LEDs.



## Consumables

- Lubrication
  - Grease for the gearbox
  - light oil for the wheels/cogs
- Transparent Tape
  - To hold cables in place
- Glue
  - If needed for any loose fits



# 1 - Electronics

Required:

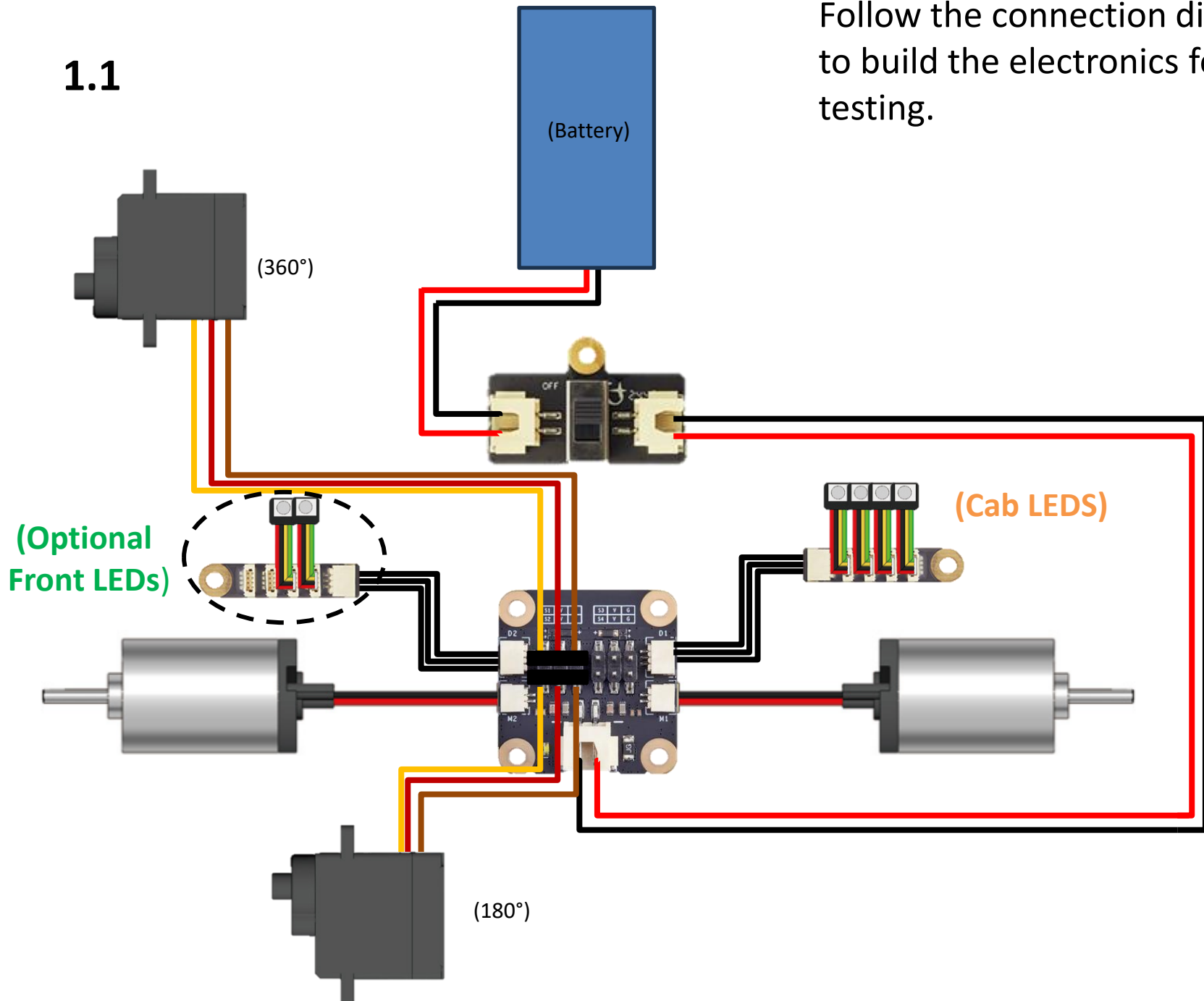


App



1.1

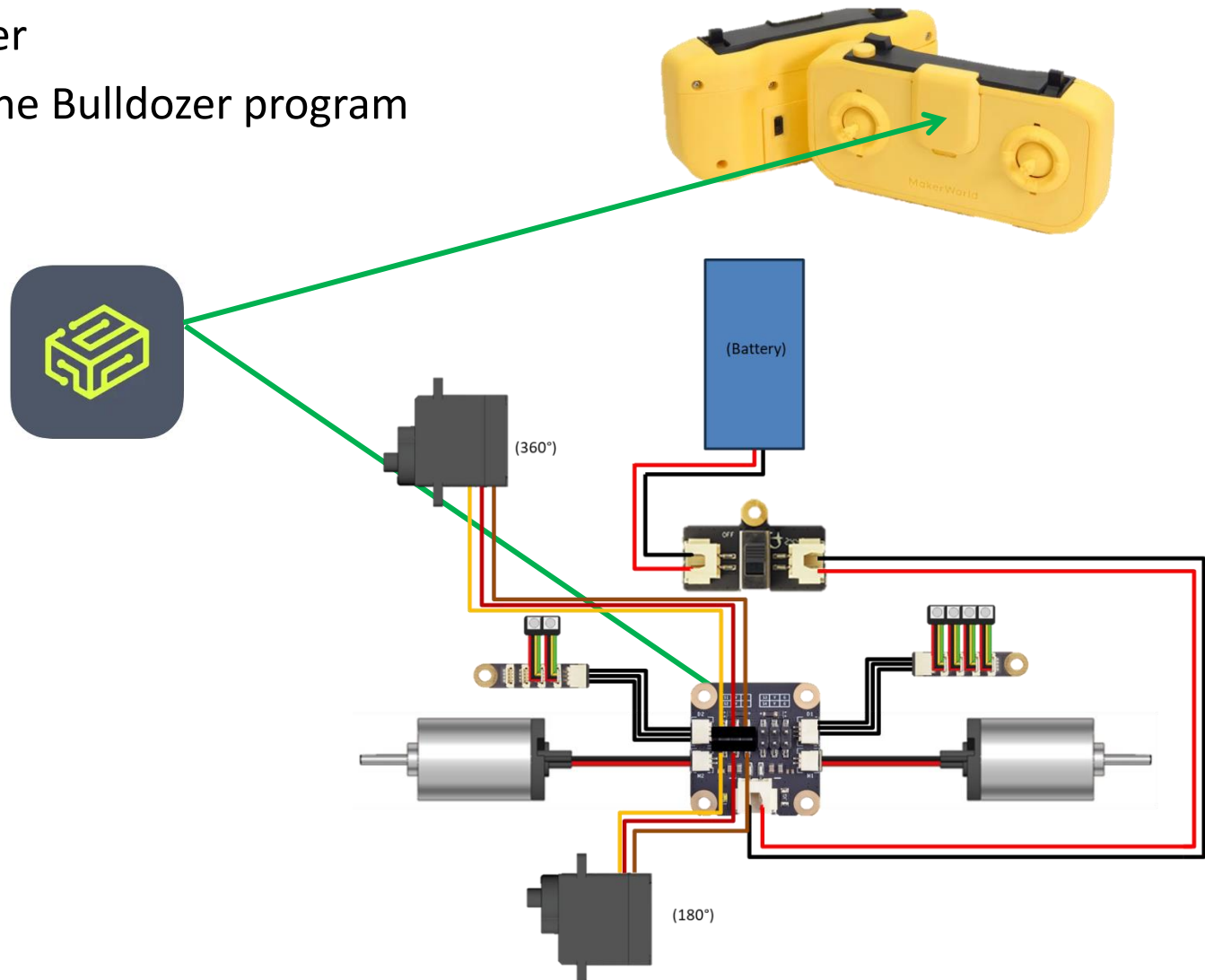
Follow the connection diagram to build the electronics for testing.



## 1.2

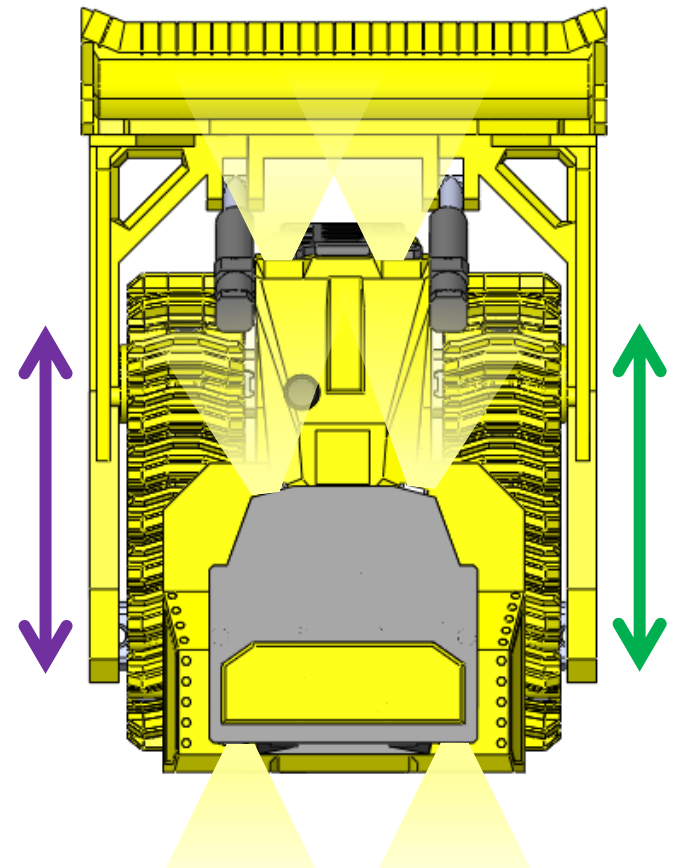
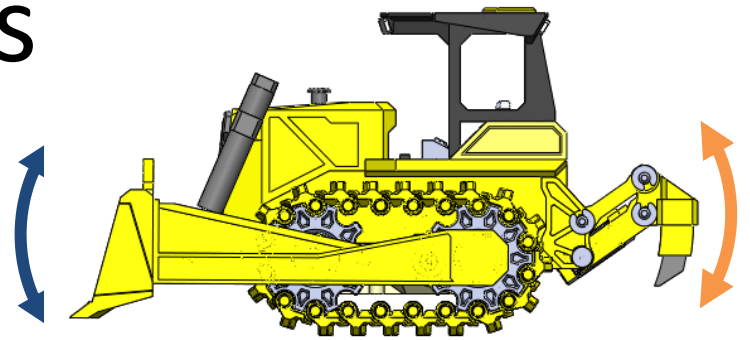
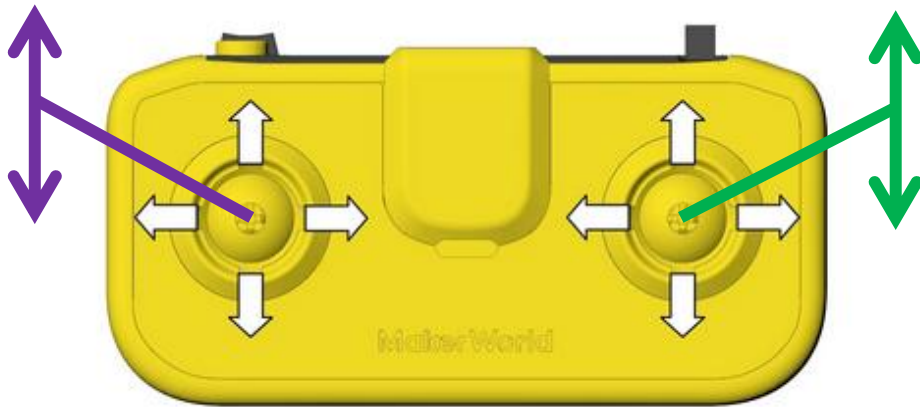
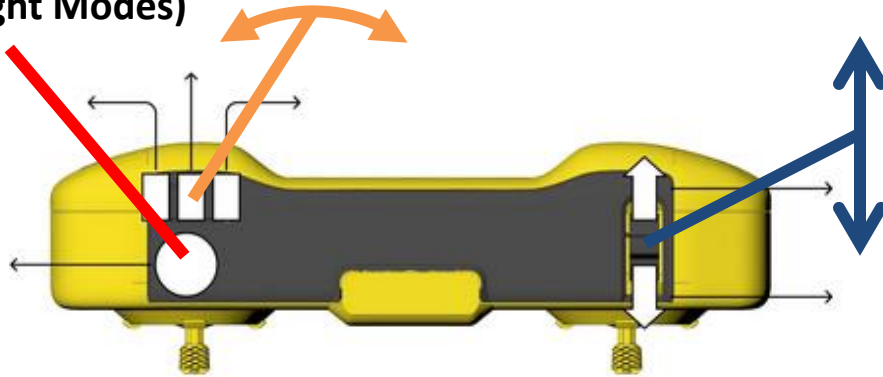
Use the app to:

1. Pair the controller with the receiver
2. Load the Bulldozer program



# Controls

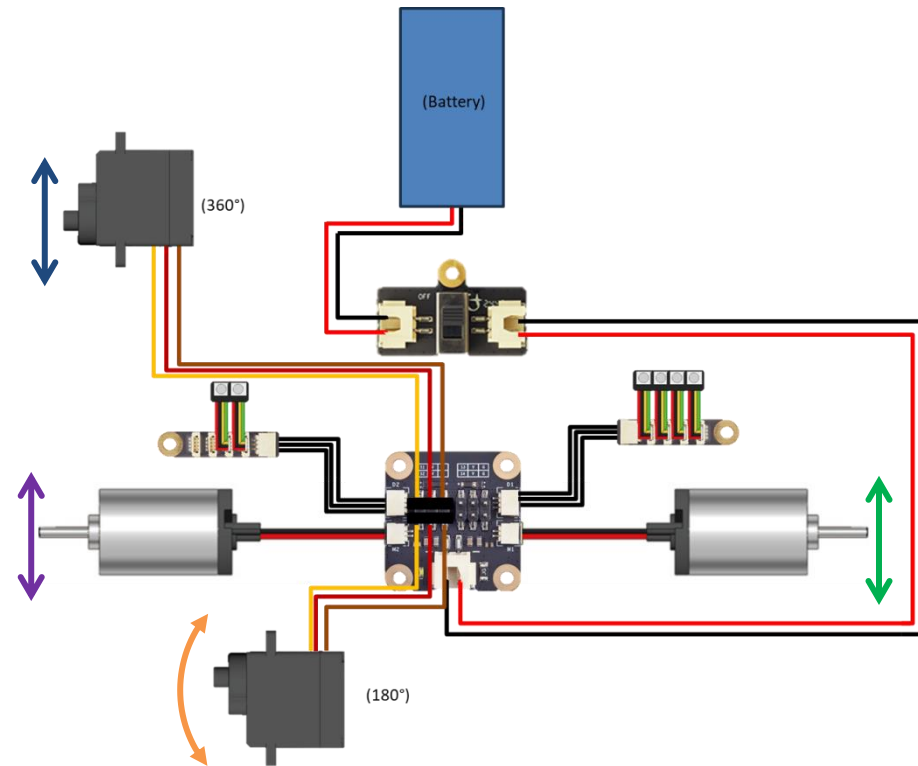
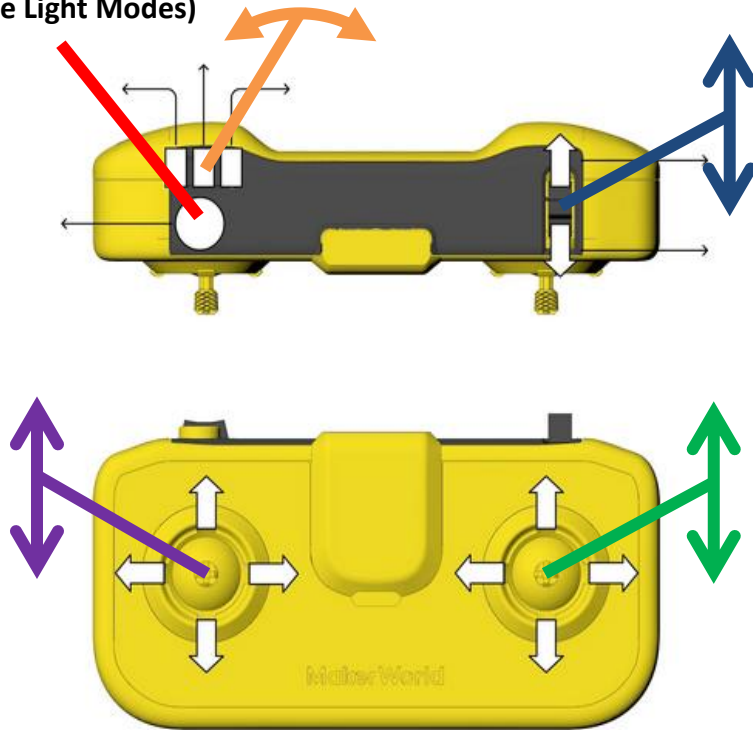
(Cycle Light Modes)



## 1.3

Check controller function with components

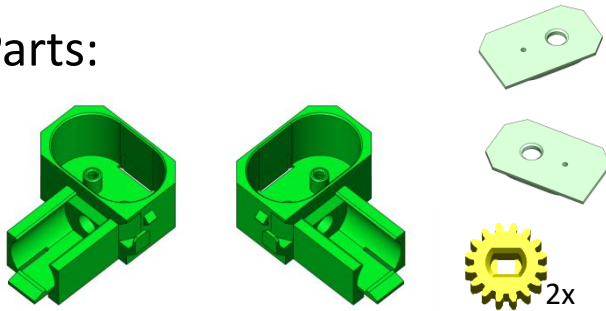
(Cycle Light Modes)





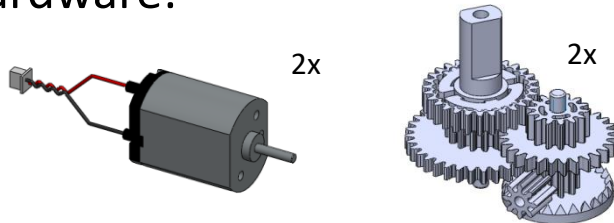
# 2 - Gearbox Assemblies

Parts:

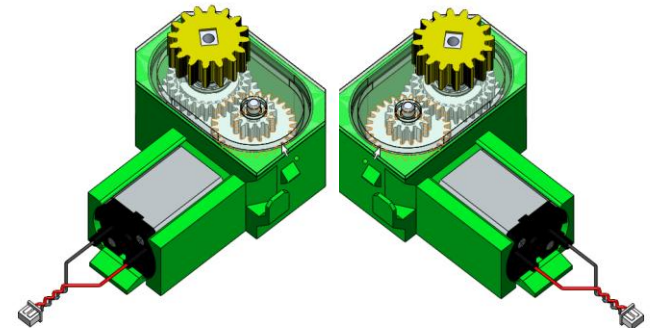


Assemble the left and right versions of the gearbox.

Hardware:

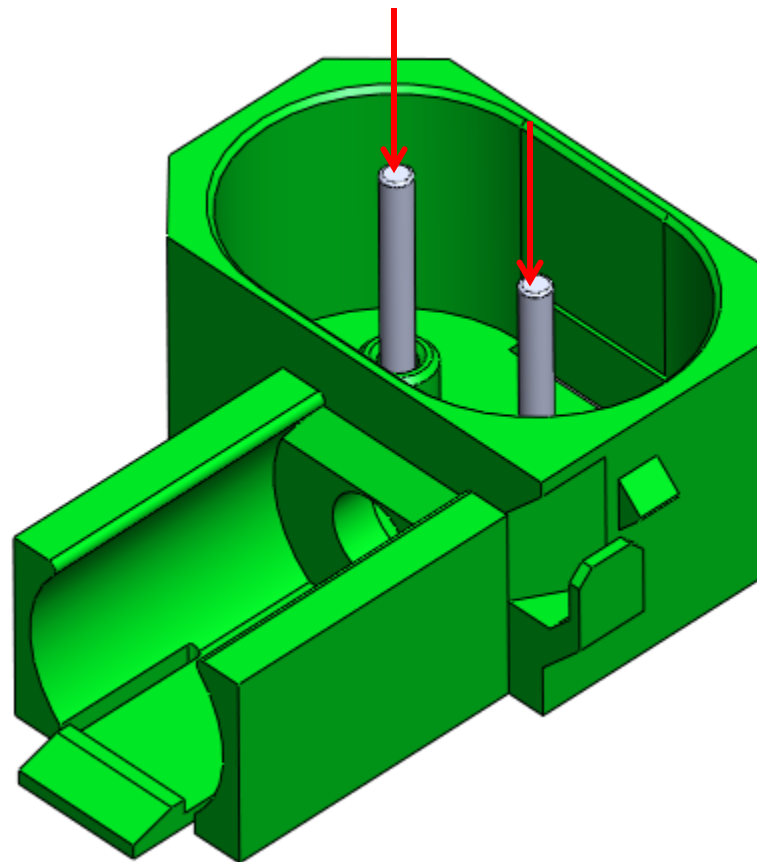
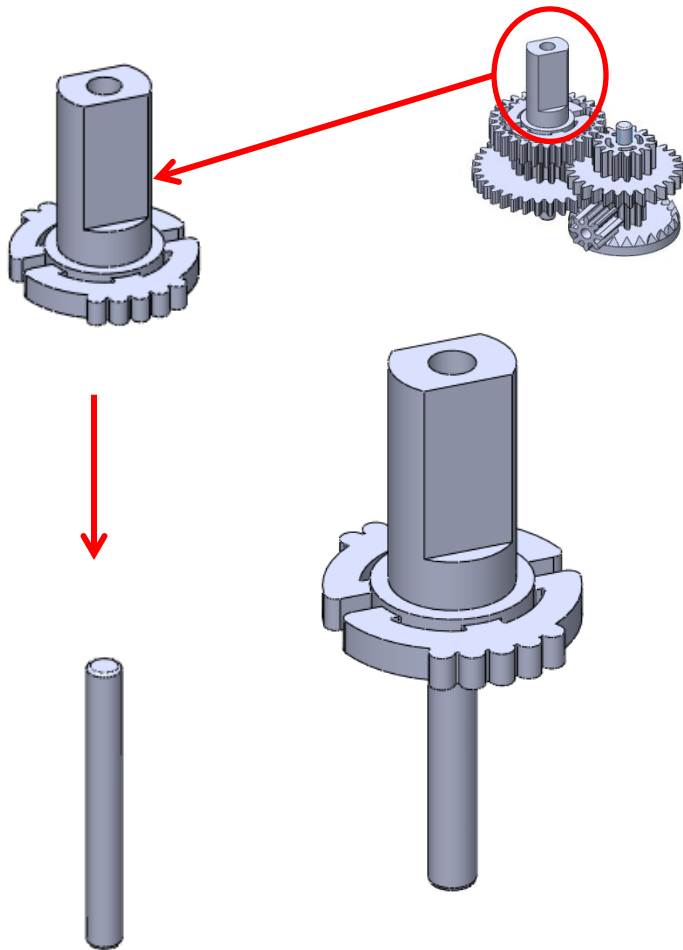


(LA016 - 1:48 Single axis  
Plastic Reduction Gear Kit)

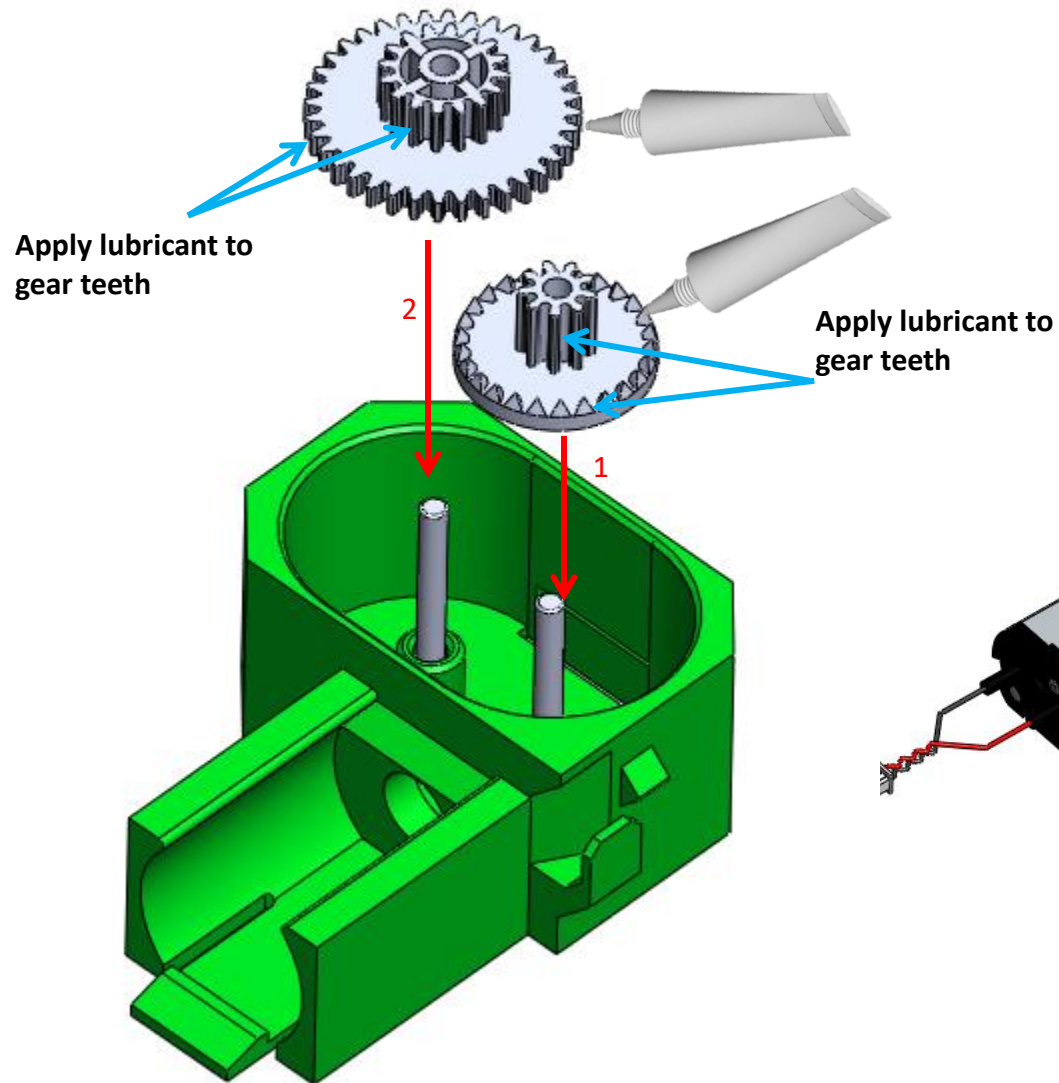


## 2.1

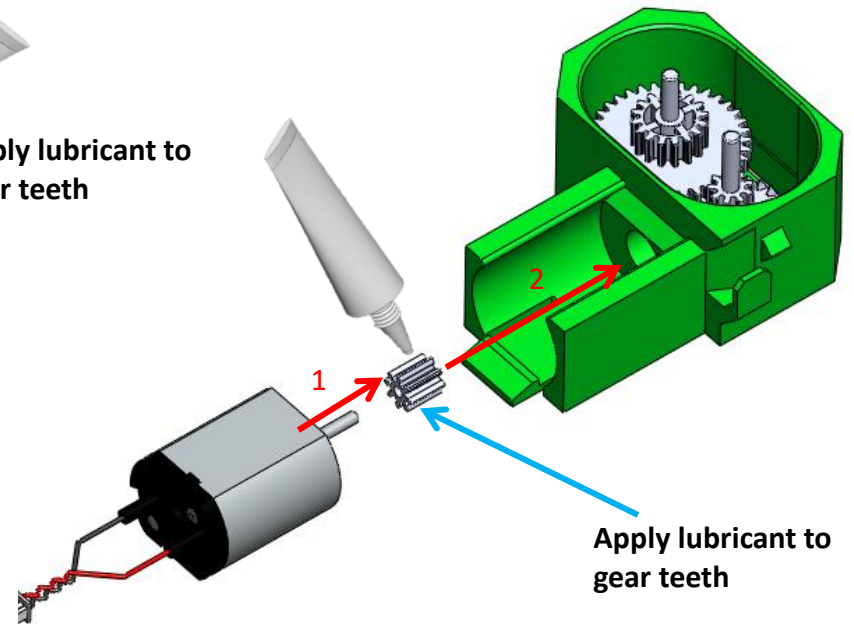
Note: Use as tool to  
press shafts into  
housing



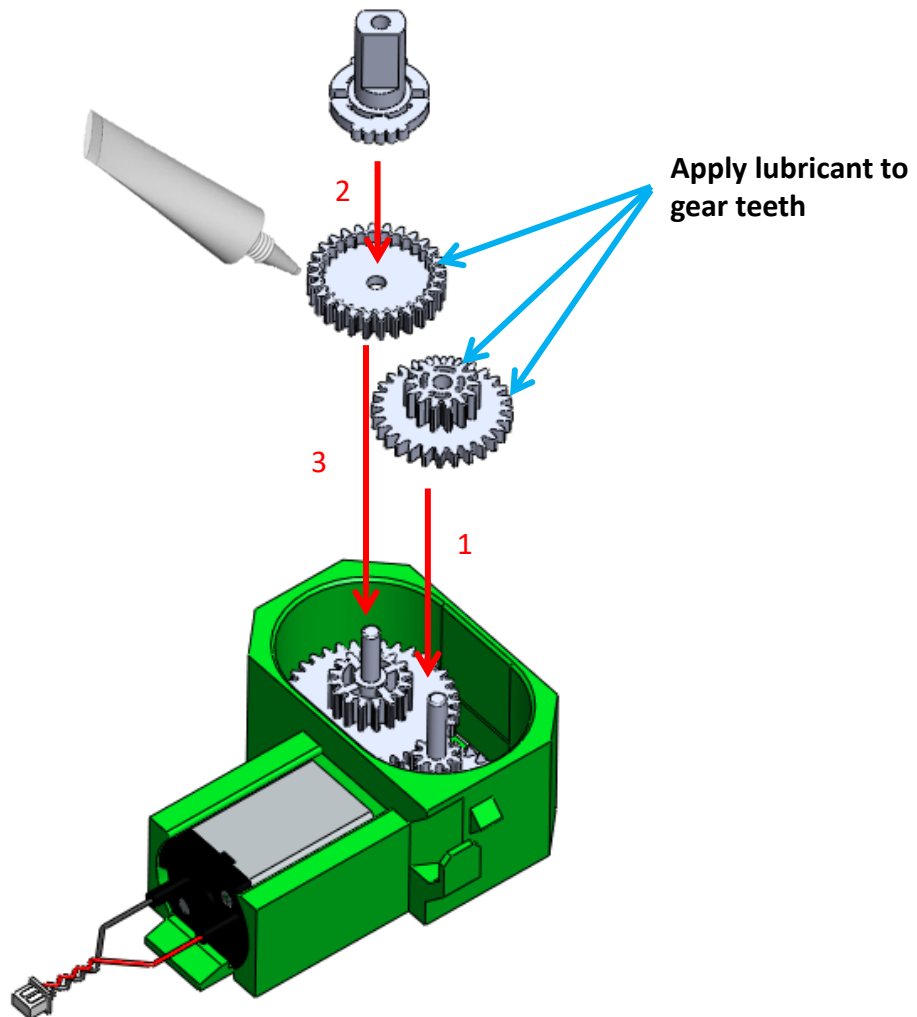
## 2.2



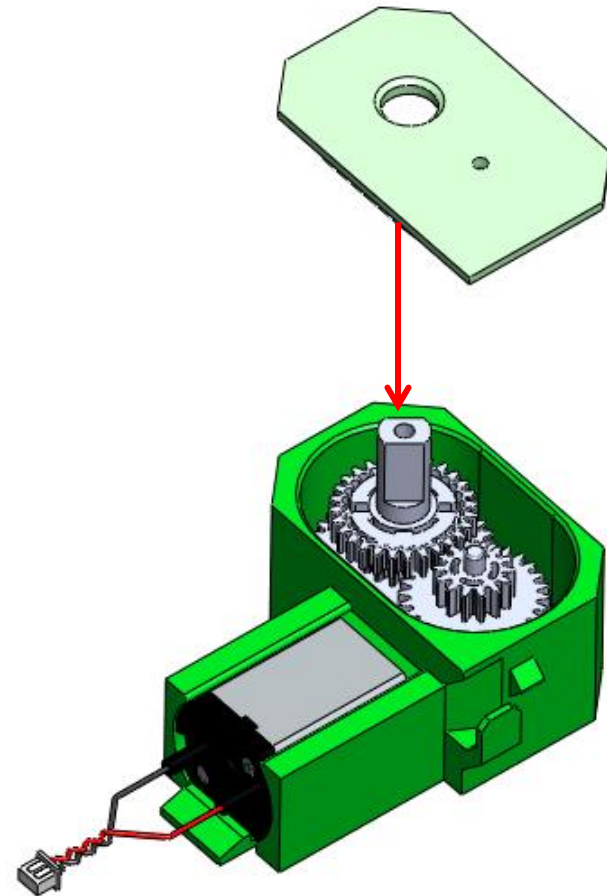
## 2.3



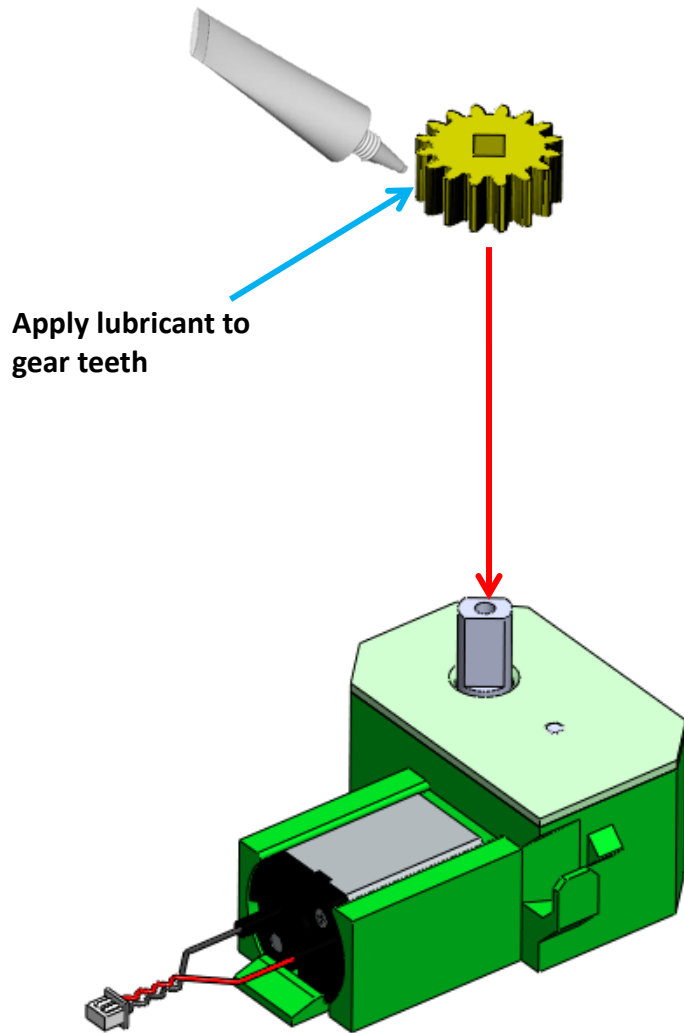
## 2.4



## 2.5

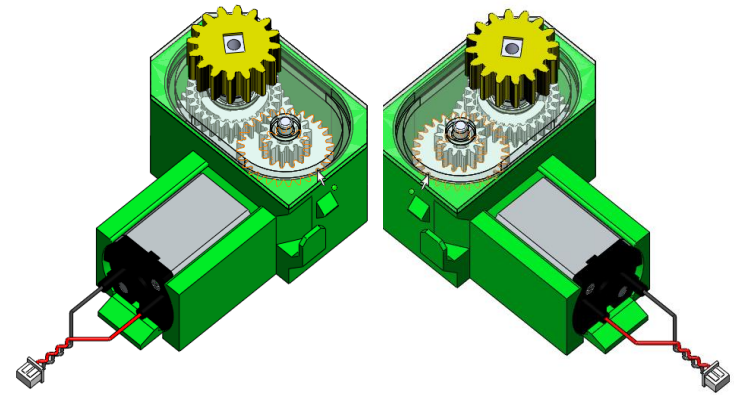


## 2.6



## 2.7

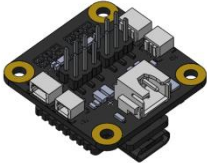
Repeat steps 2.1 – 2.6 to create opposite gearbox




# Parts:

2x

## Hardware:

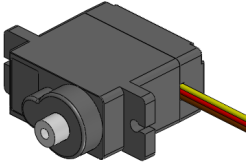
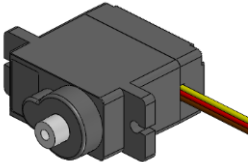


2x




360° Servo (PG002)

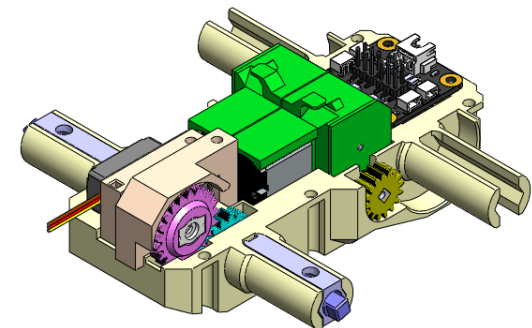
(!!) Check label to verify



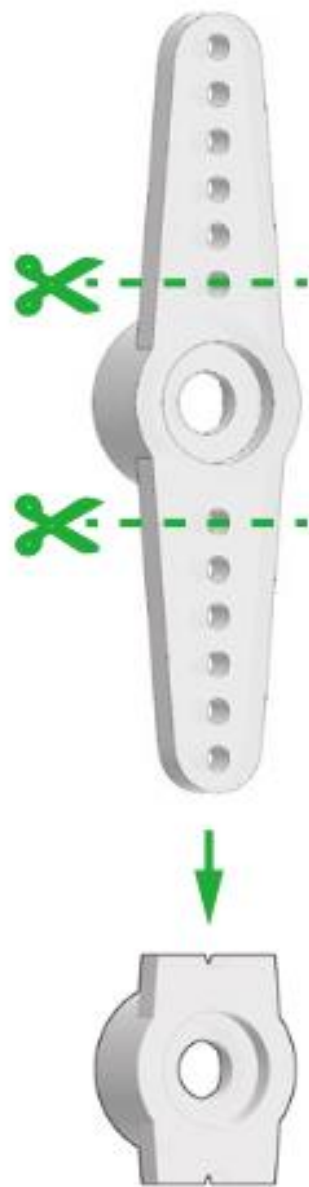
180° Servo (PG001)



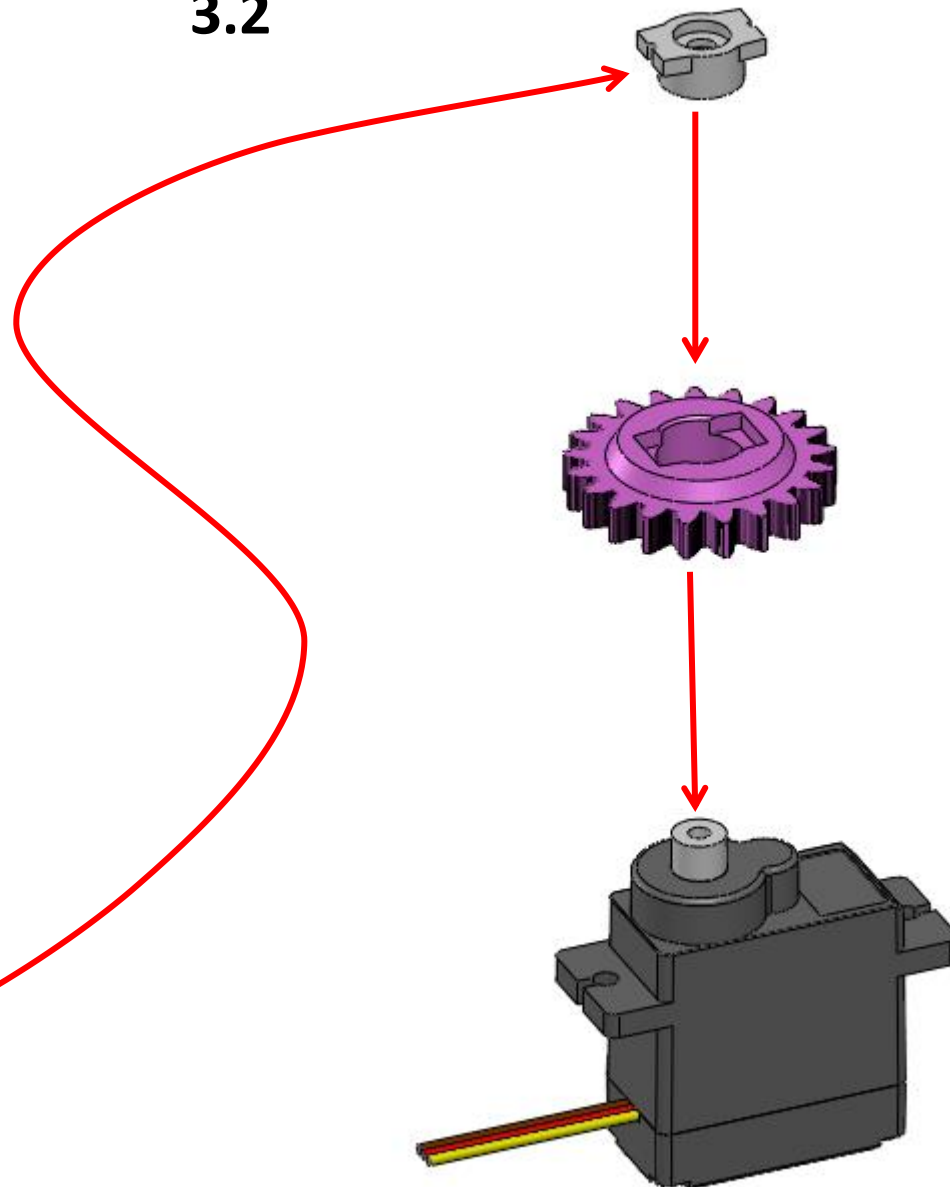
1x

[illegible]

3.1

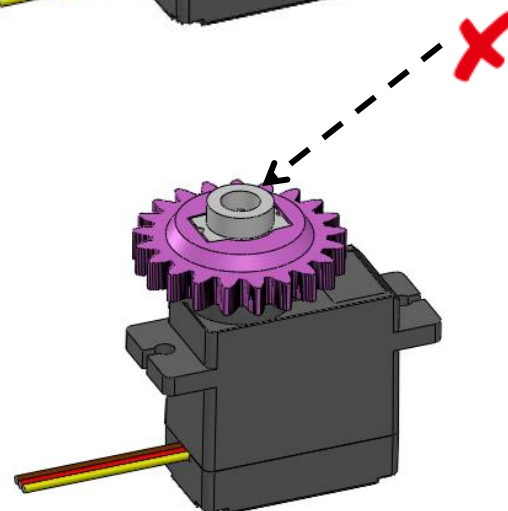
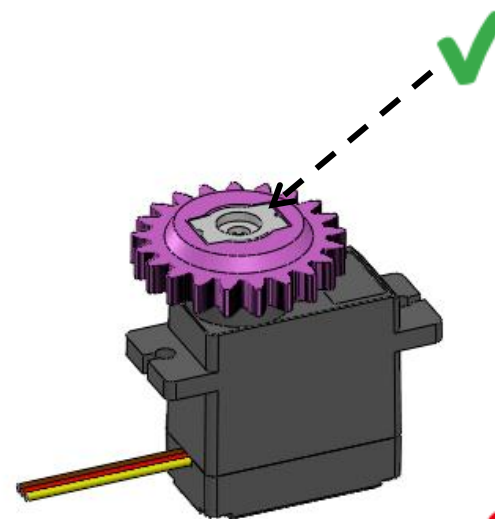
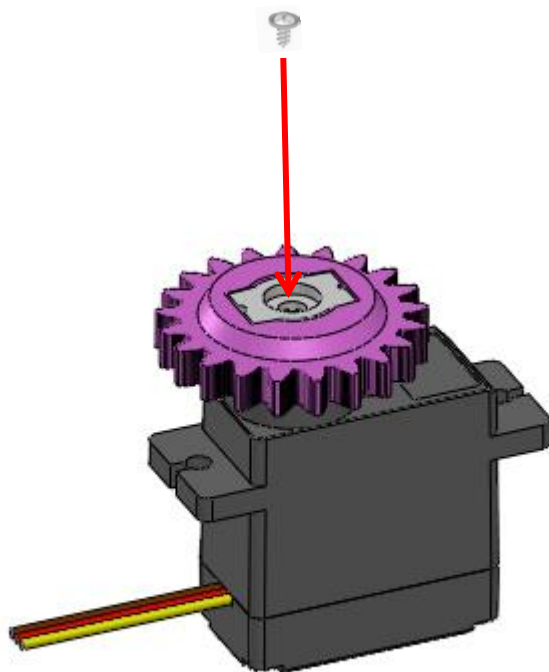
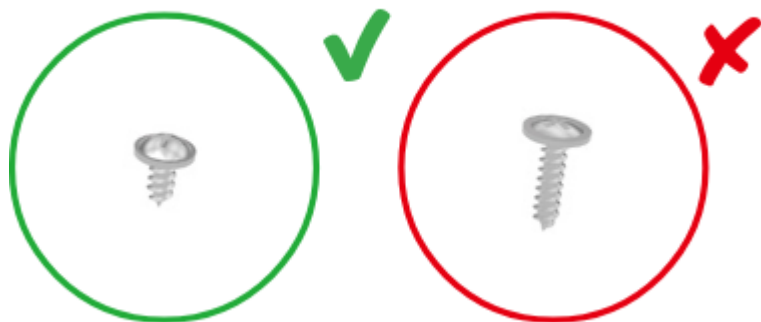


3.2



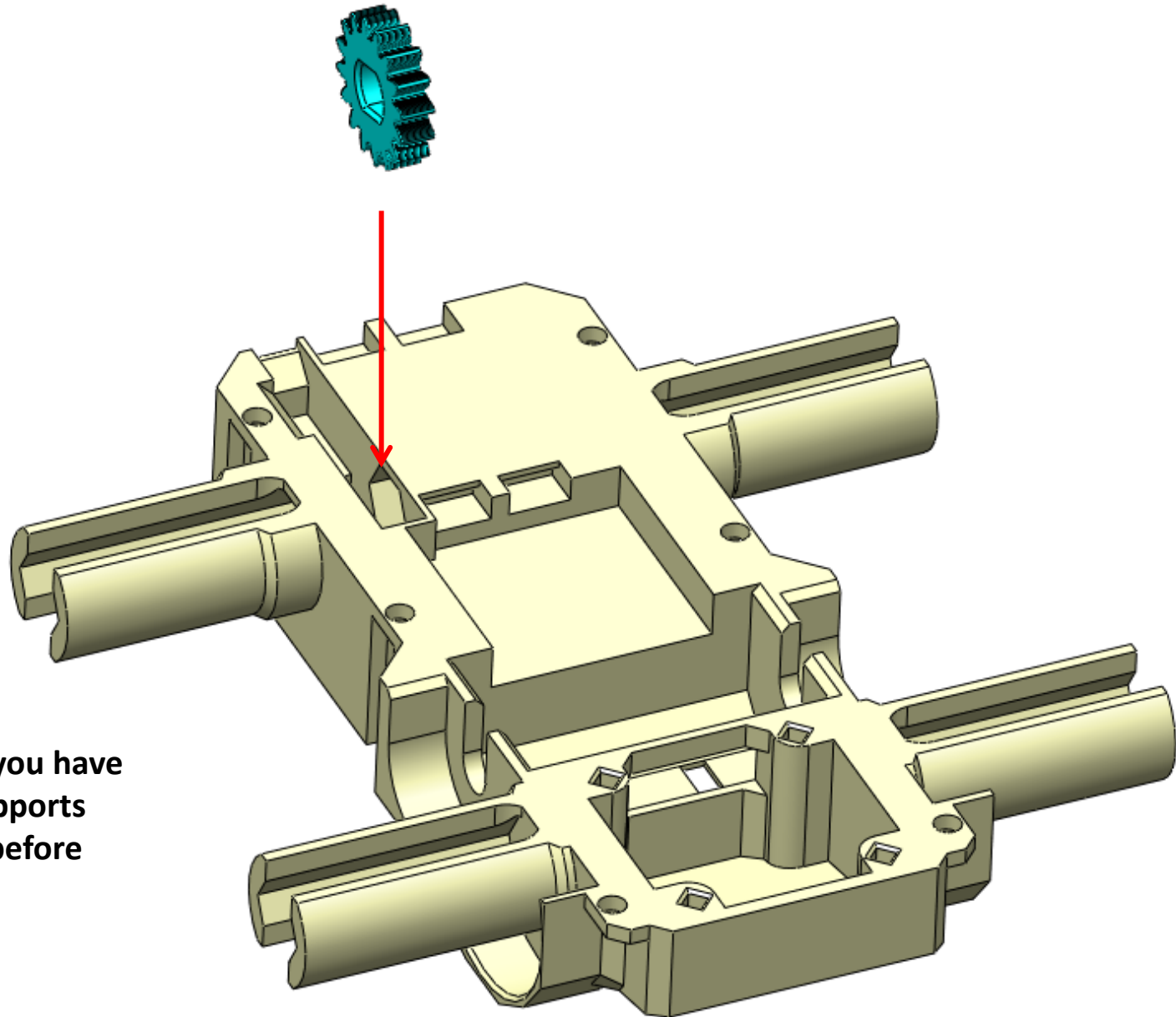


### 3.3



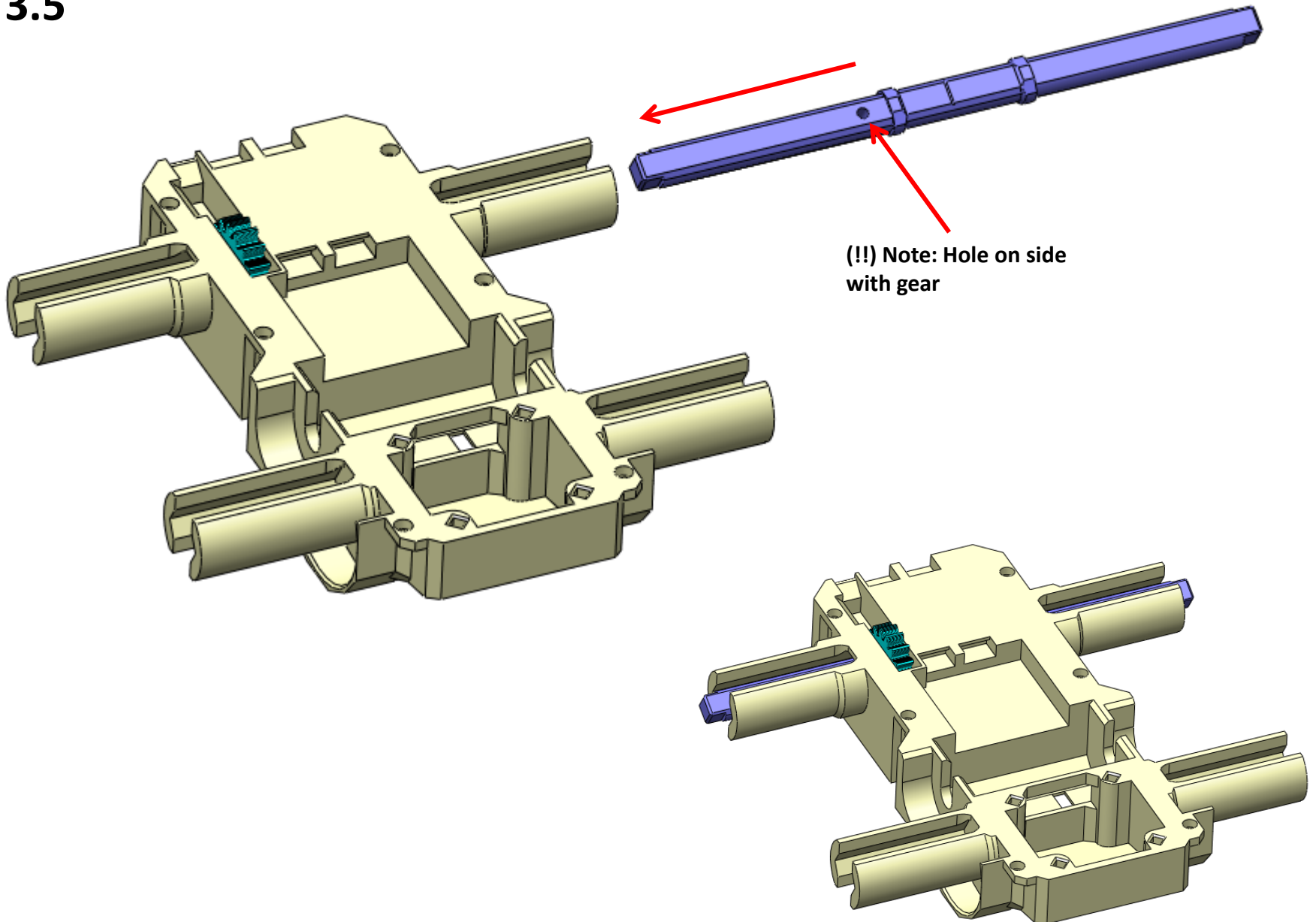


## 3.4

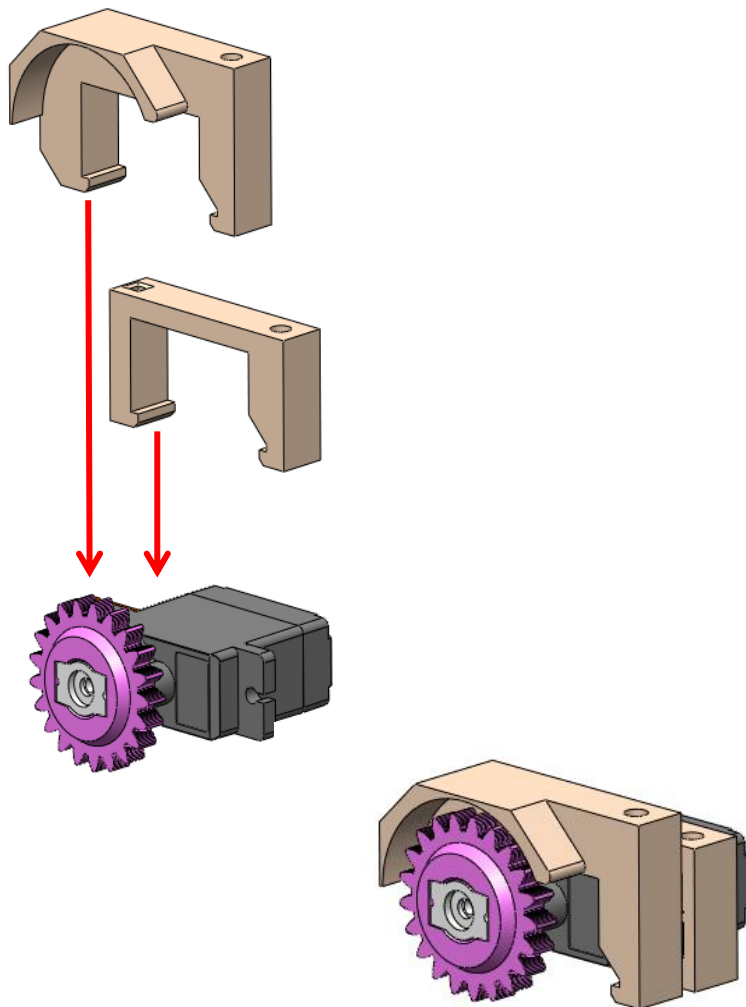


**(!!) Make sure you have removed all supports from this part before assembly**

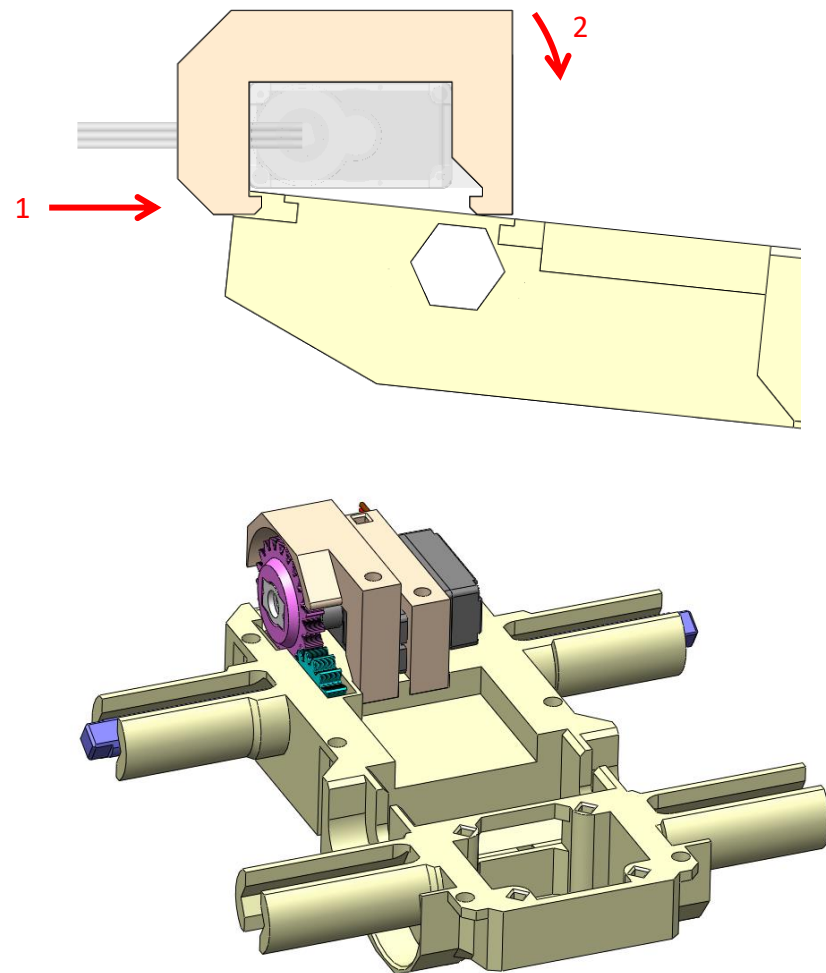
## 3.5



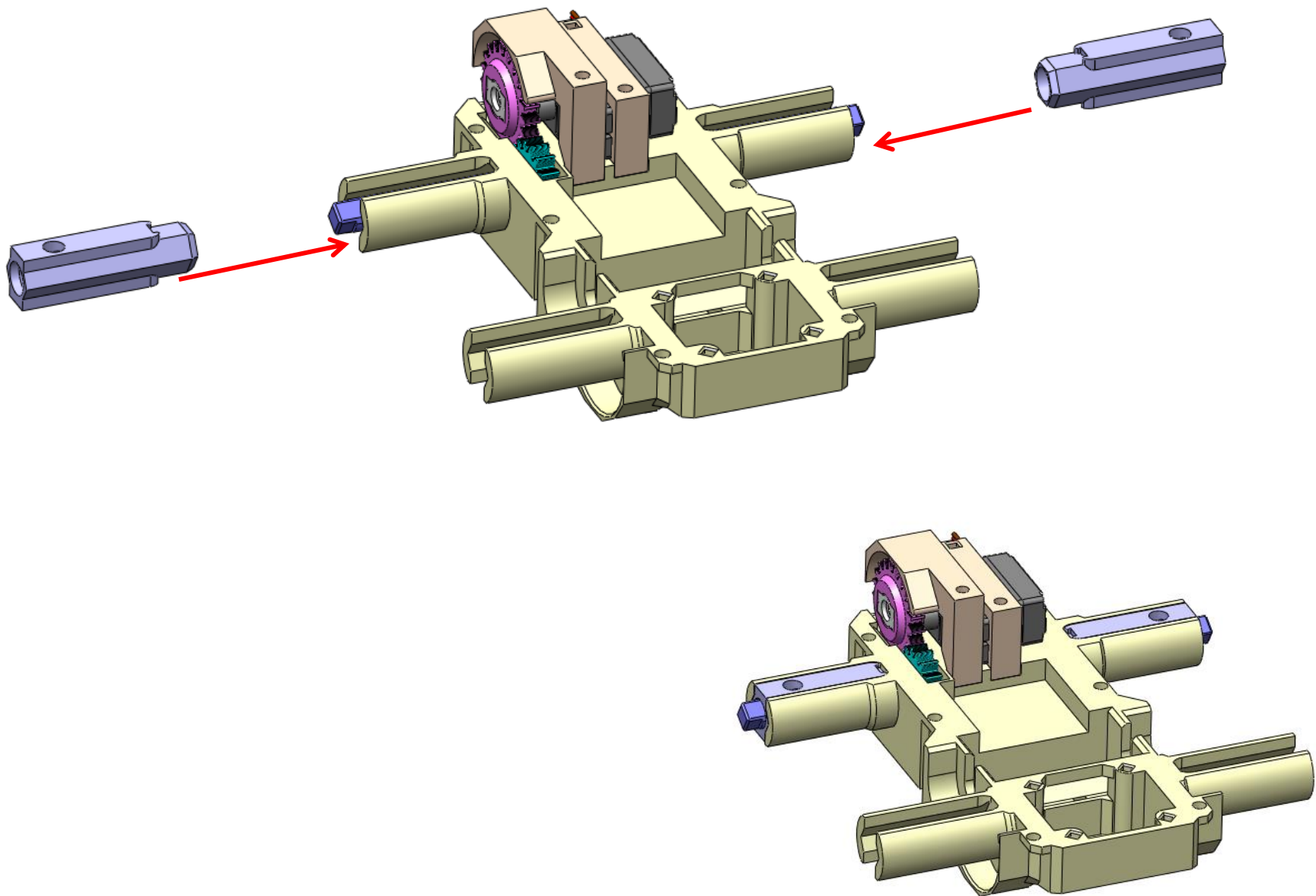
3.6



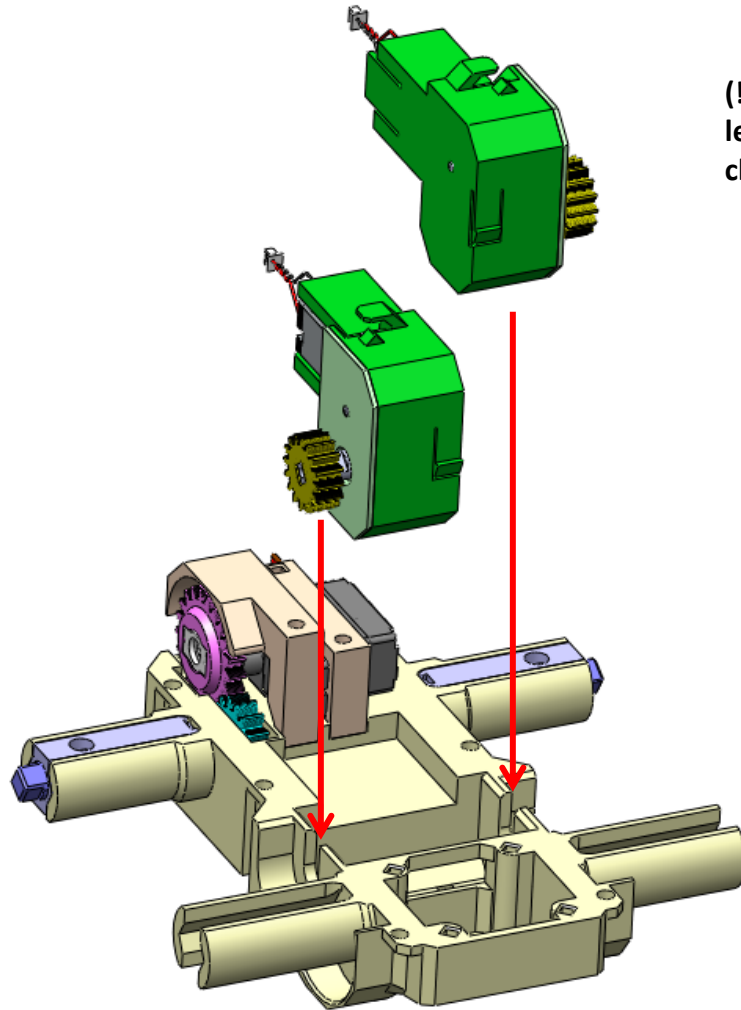
3.7



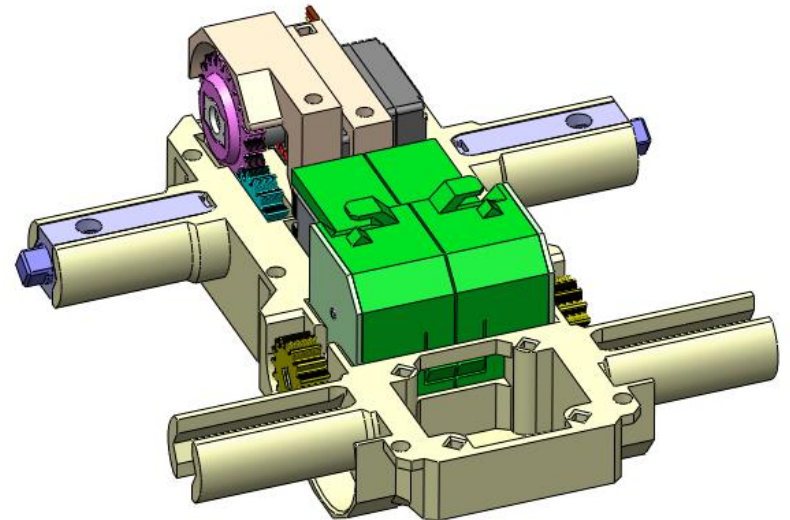
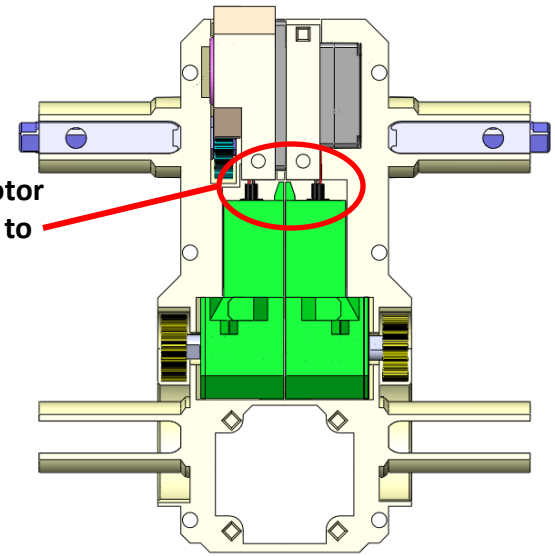
3.8



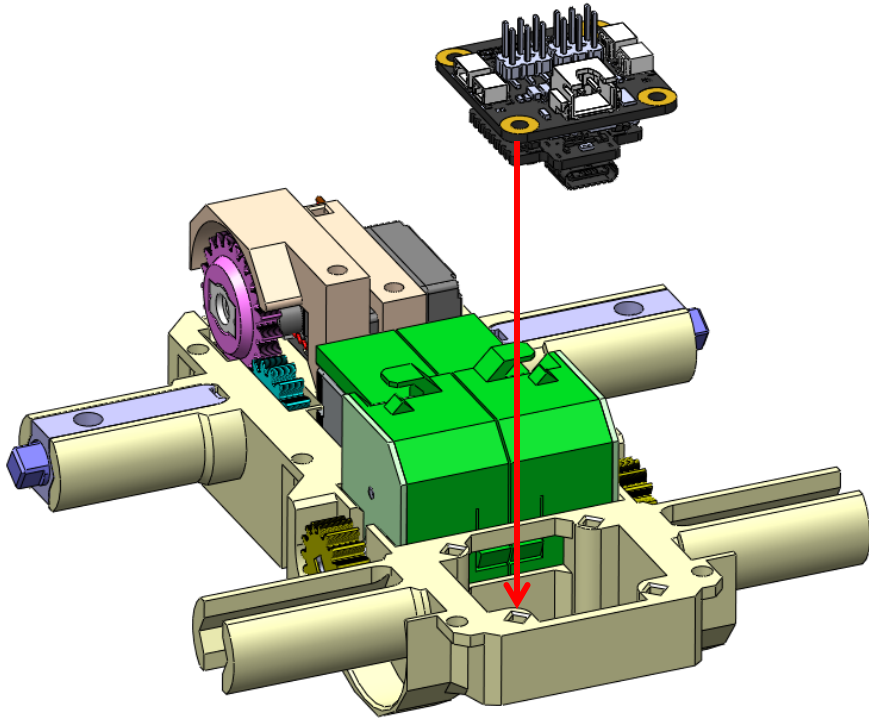
## 3.9



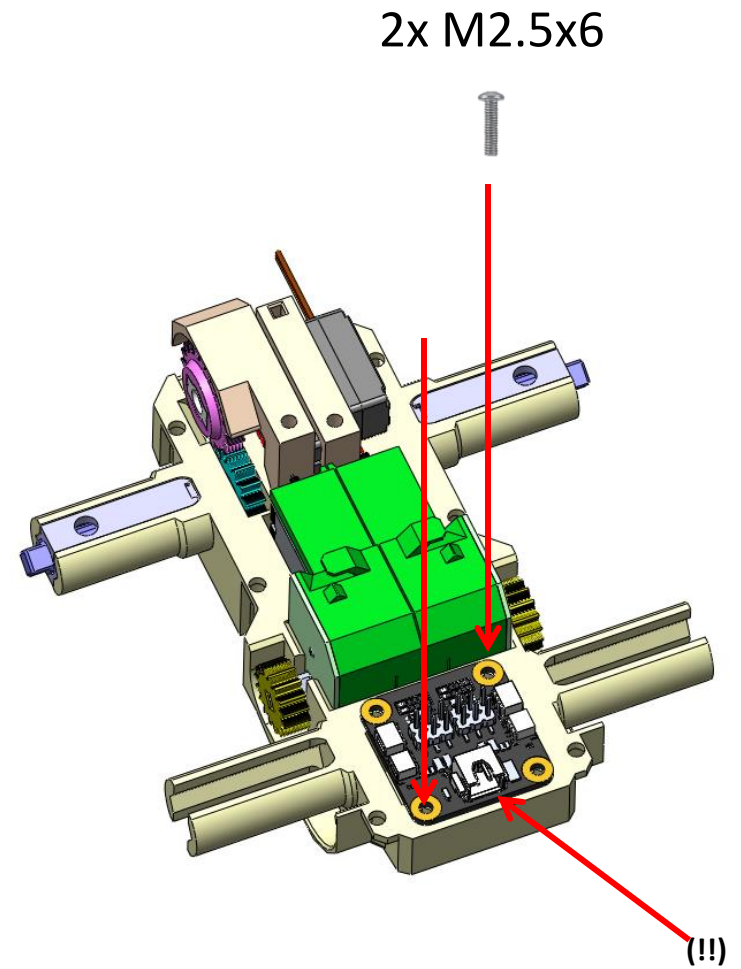
(!!) Gently bend motor  
leads to either side to  
clear servo clips



3.9

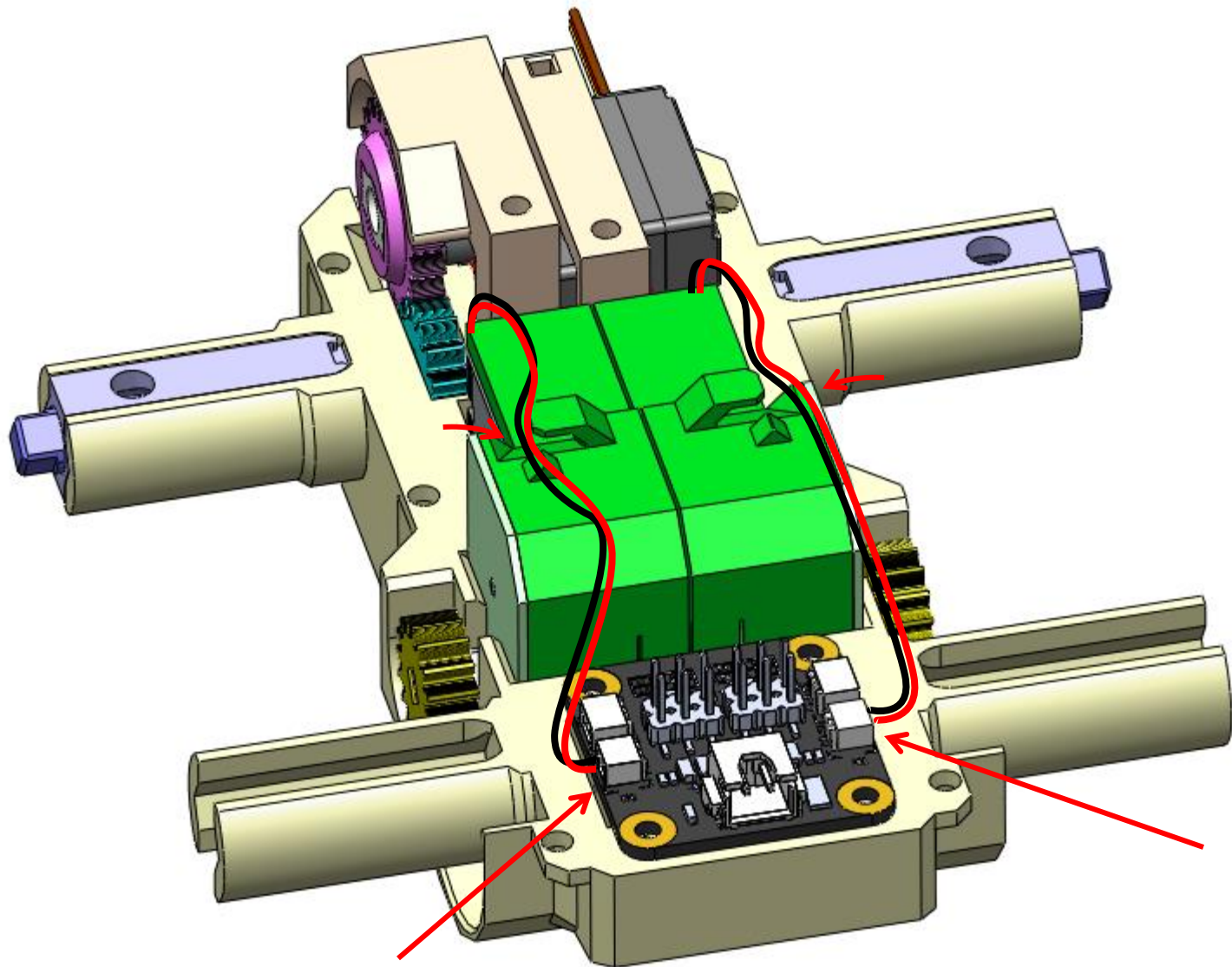


3.10



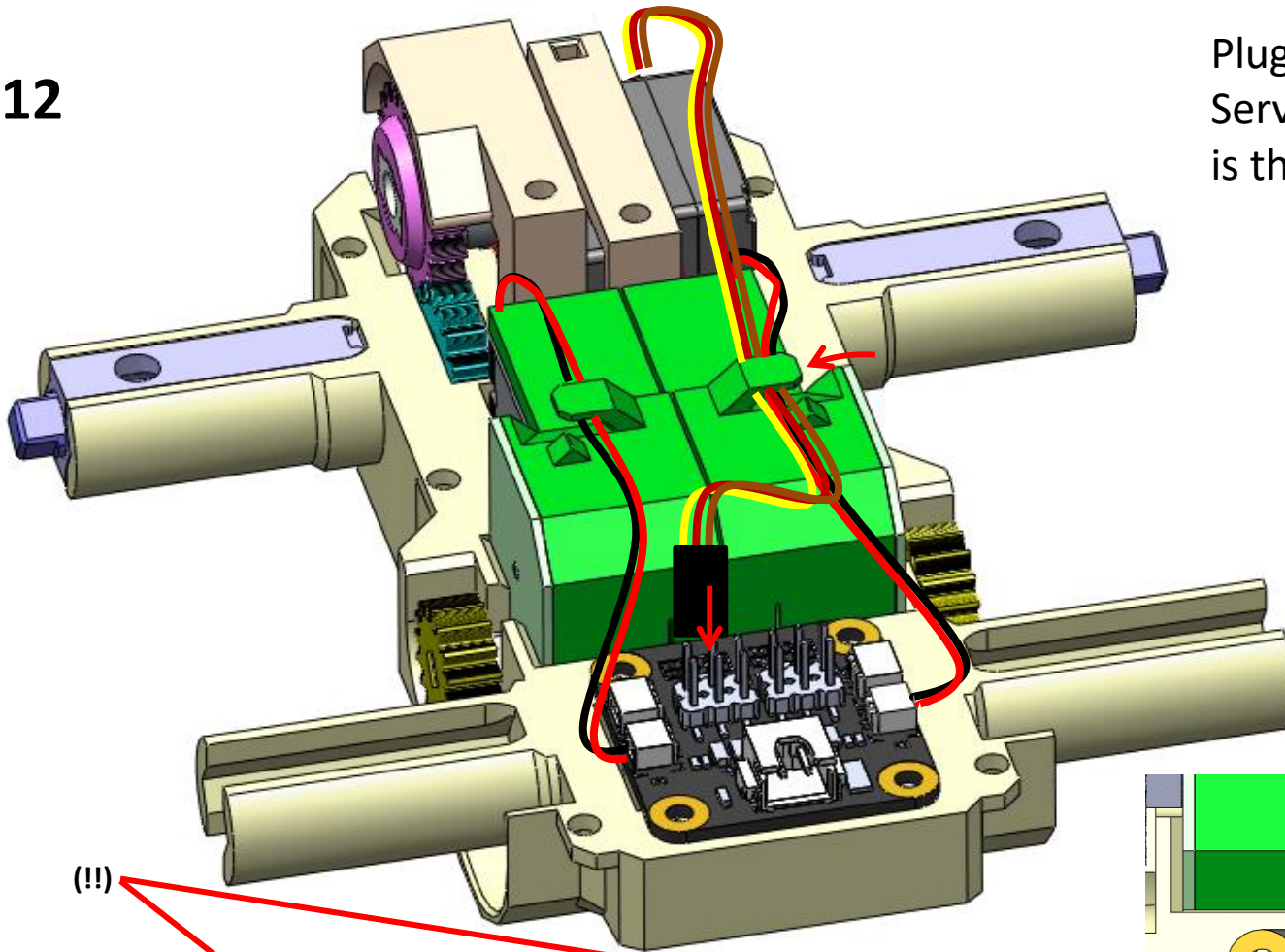


3.11

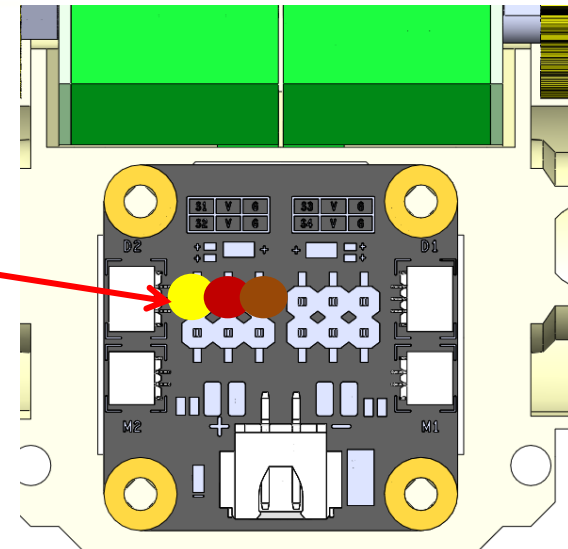
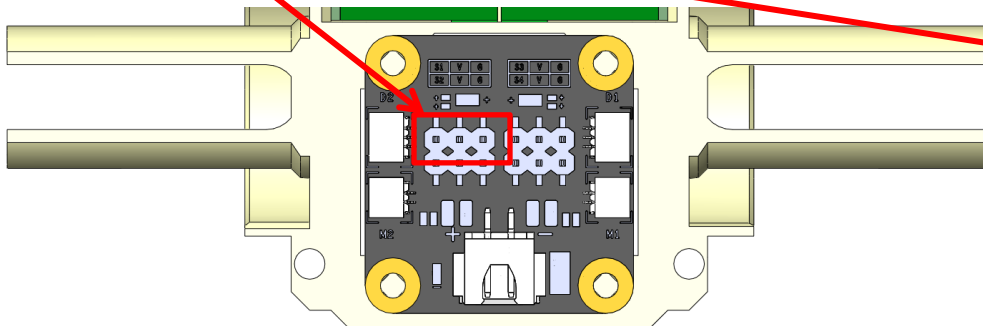


### 3.12

Plug in the PG002 360° Servo into port 1. This is the blade servo.



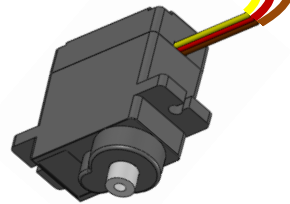
(!!)





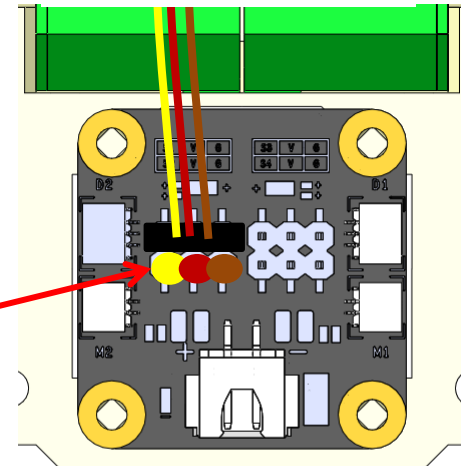
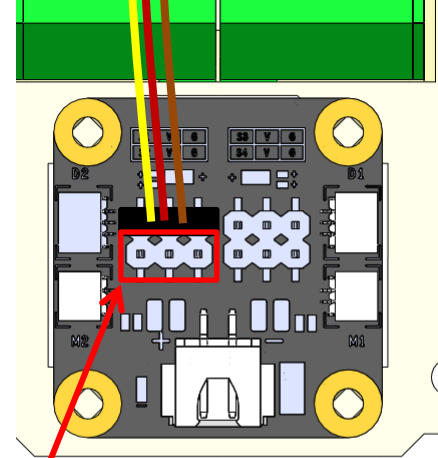
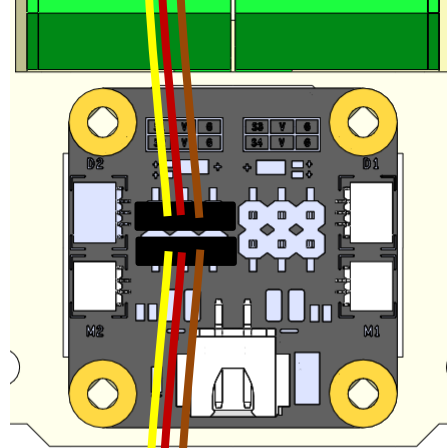
### 3.13a

Plug in the PG001 180° Servo into port2. This is the Ripper Servo.

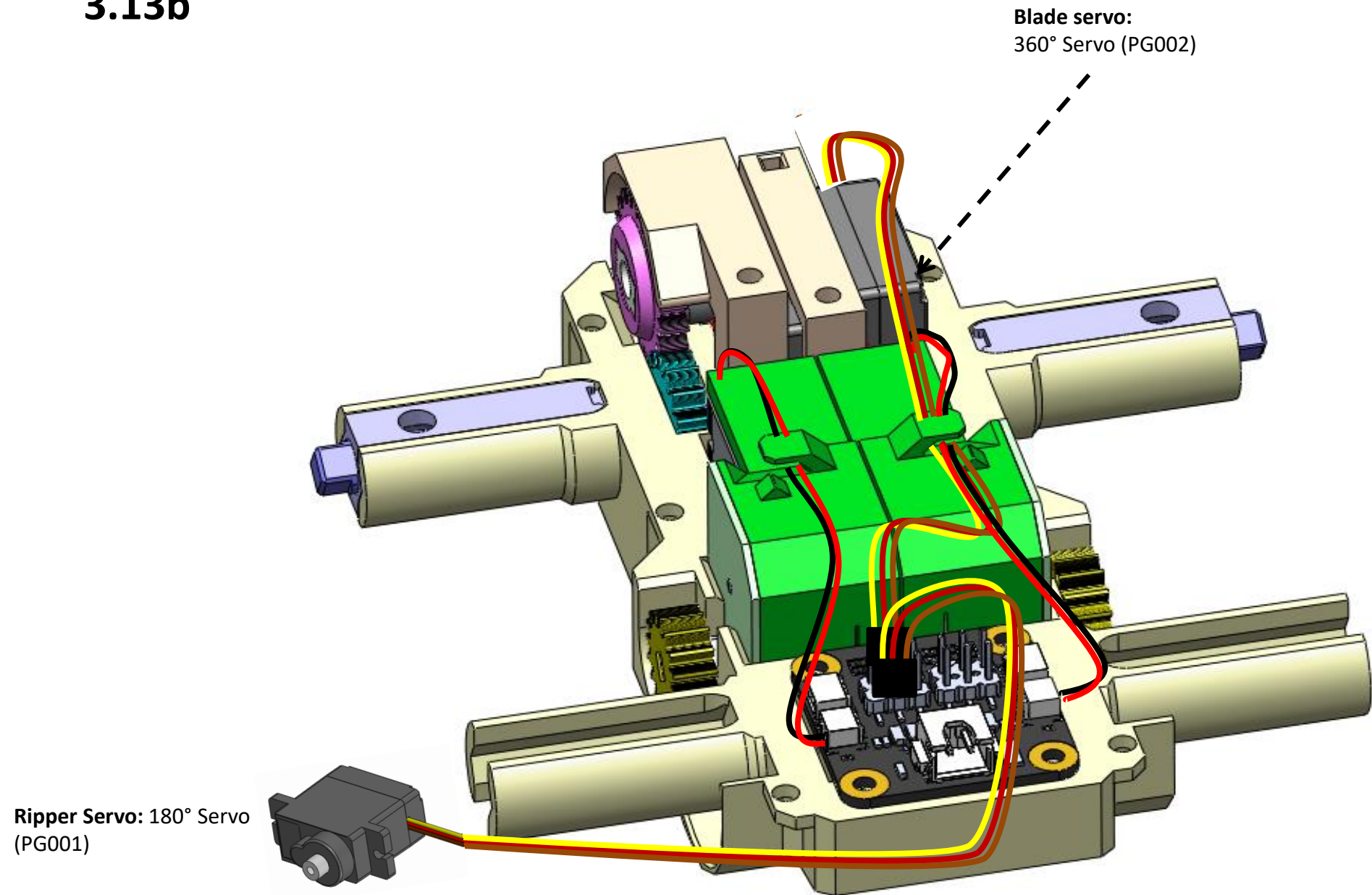


180° Servo (PG001)

(!!) Check label to verify

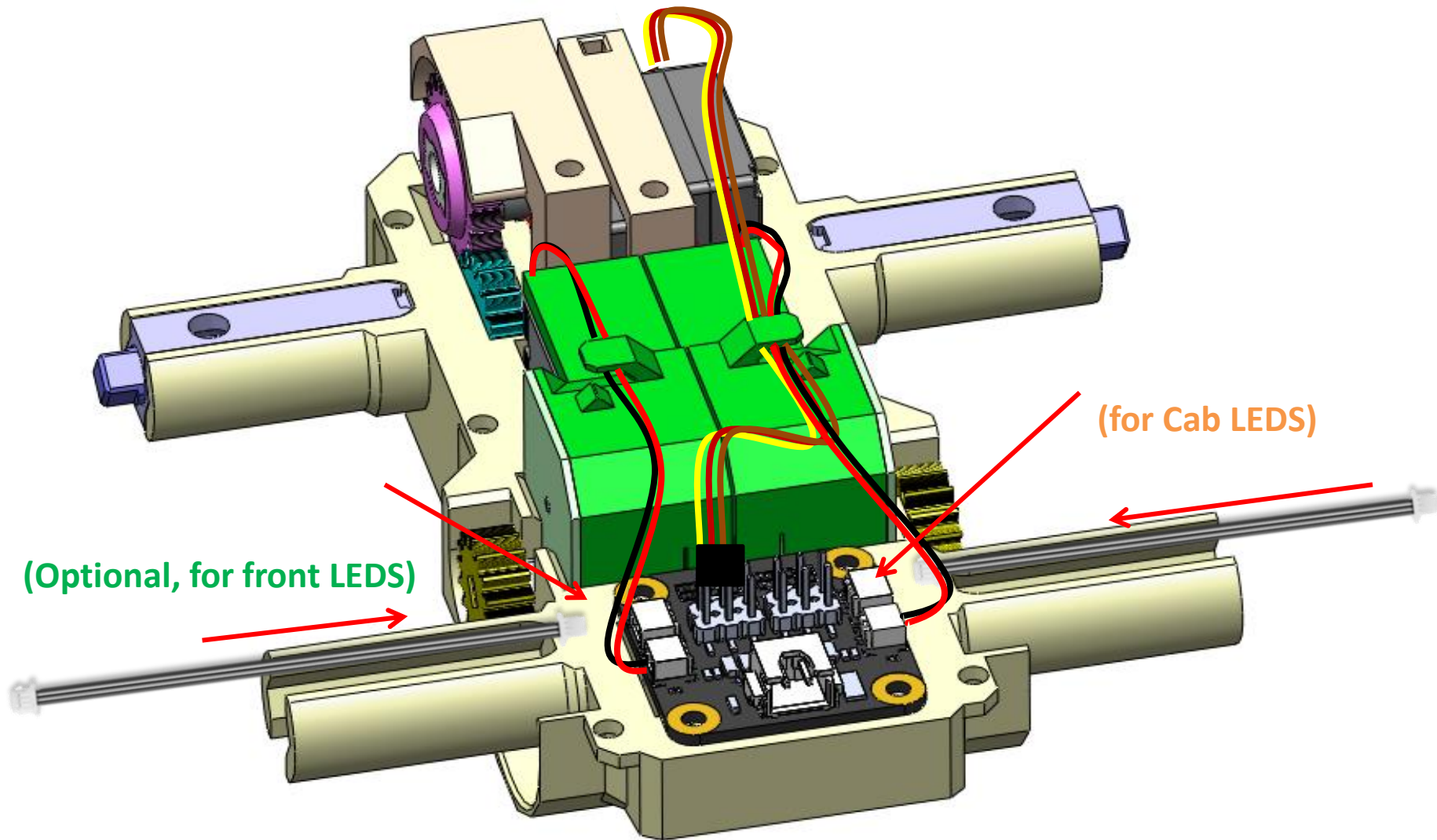


## 3.13b



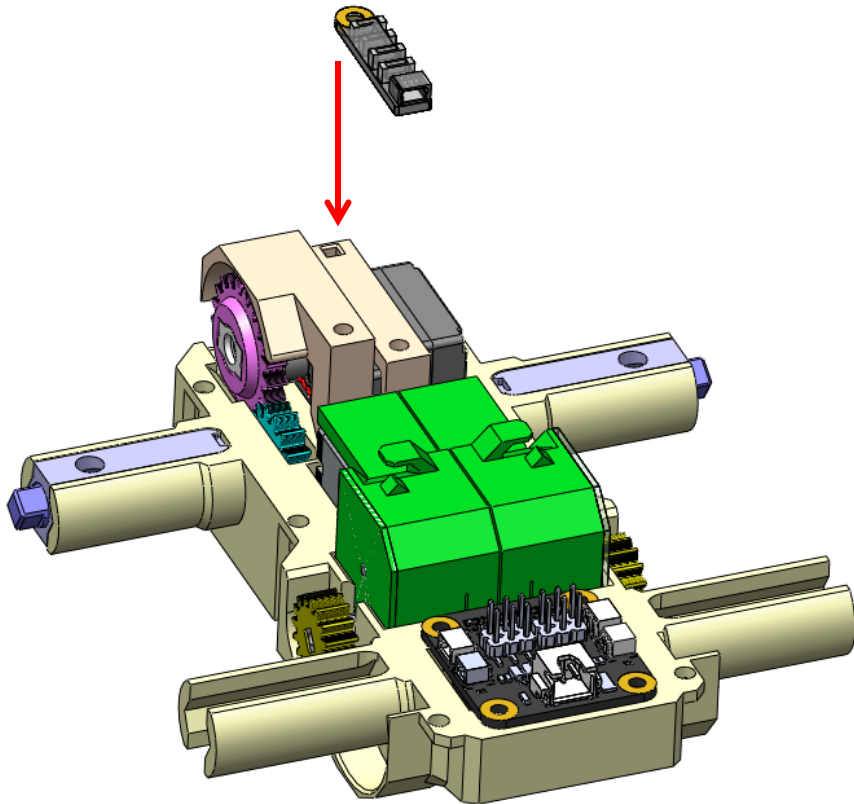
3.14

1x or 2x



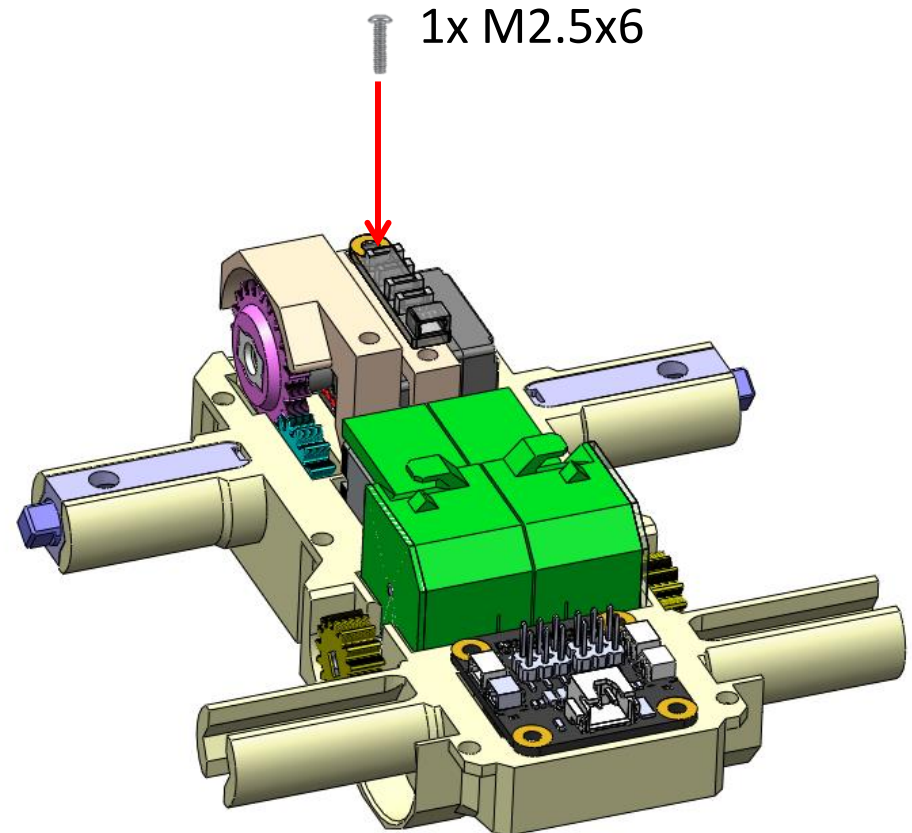
### 3.15

(Optional, for front LEDS)



### 3.16

(Optional, for front LEDS)

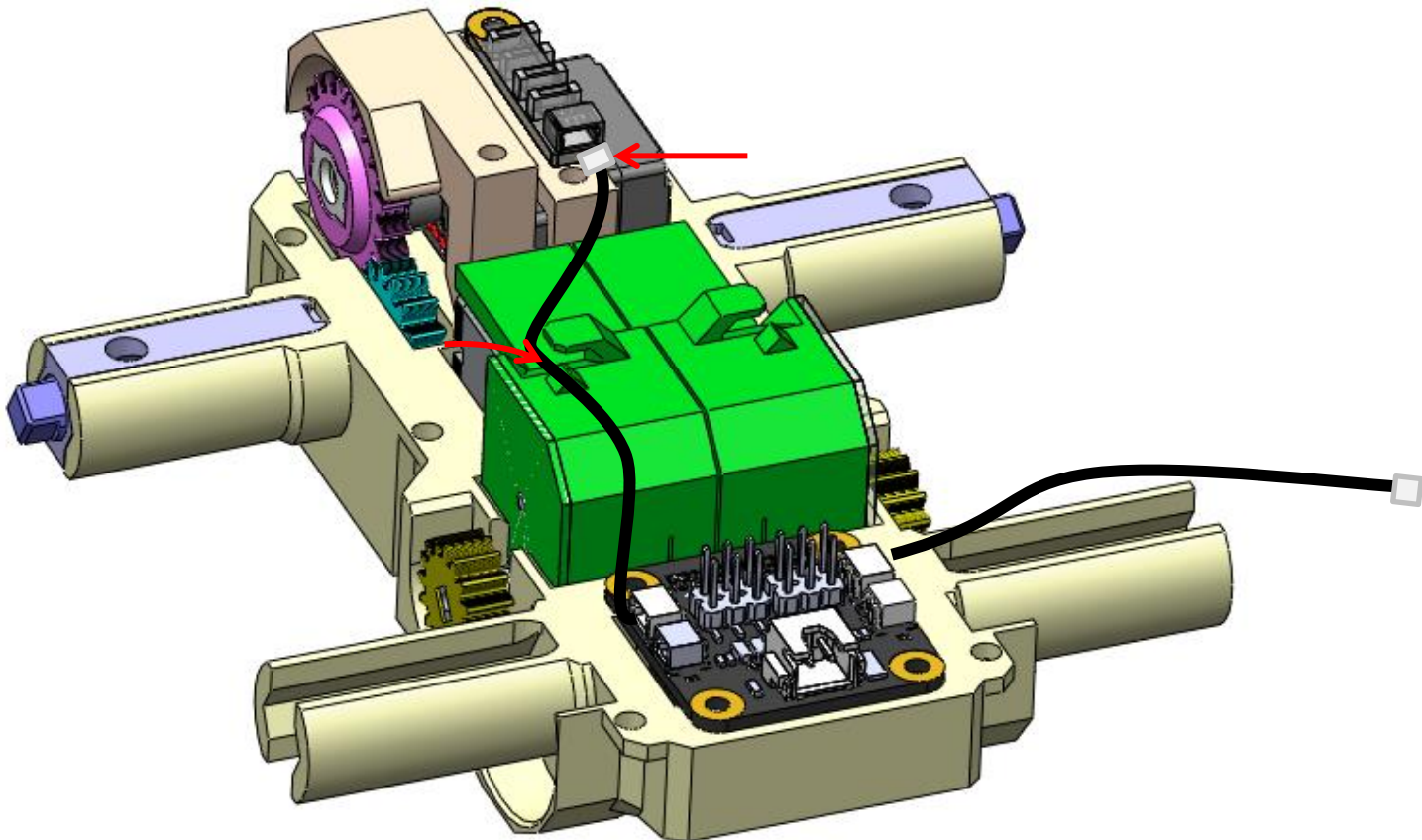




### 3.17

(Optional, for front LEDs)

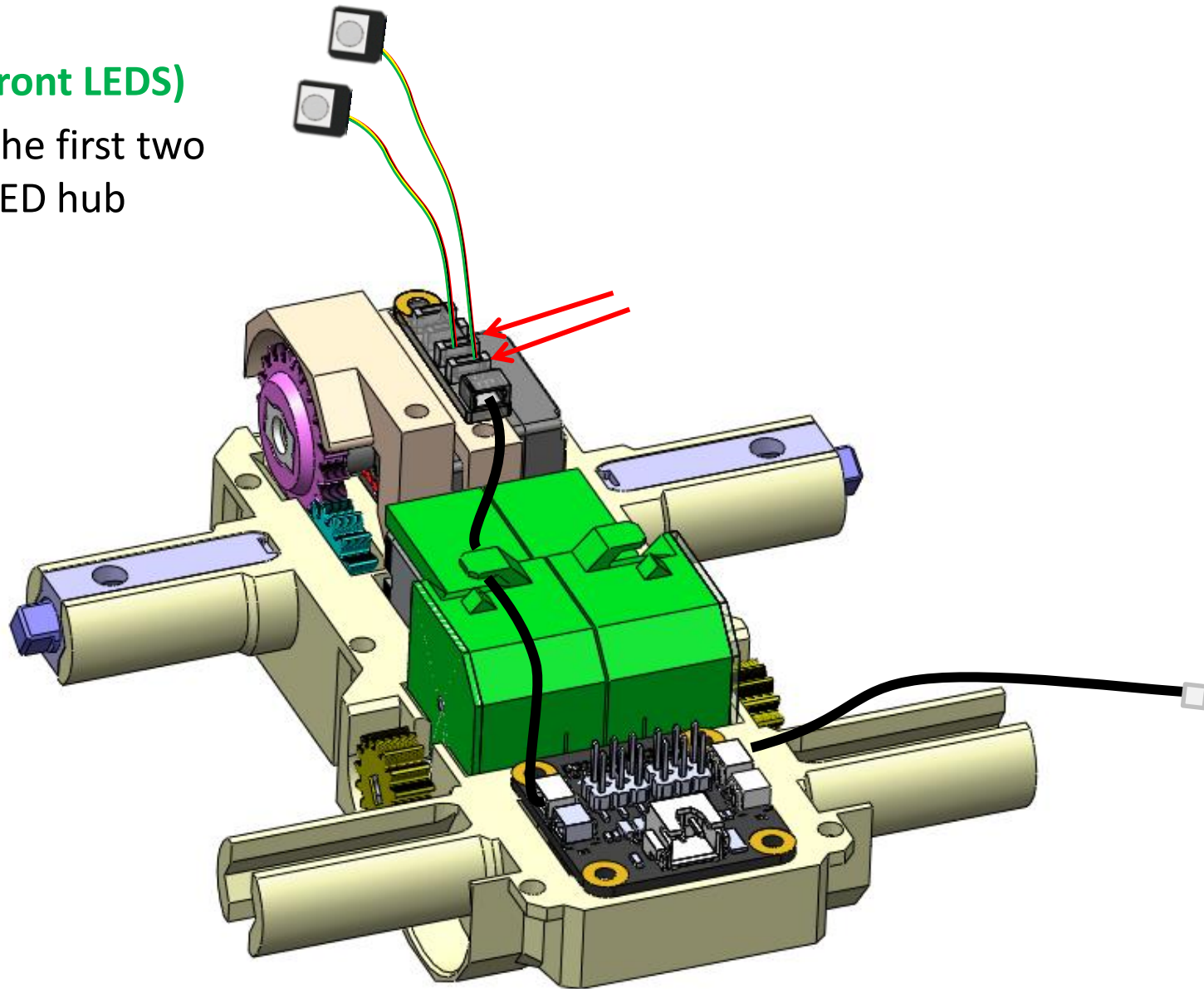
Plug cable on left side into LED hub and tuck wires into cable clip



### 3.18

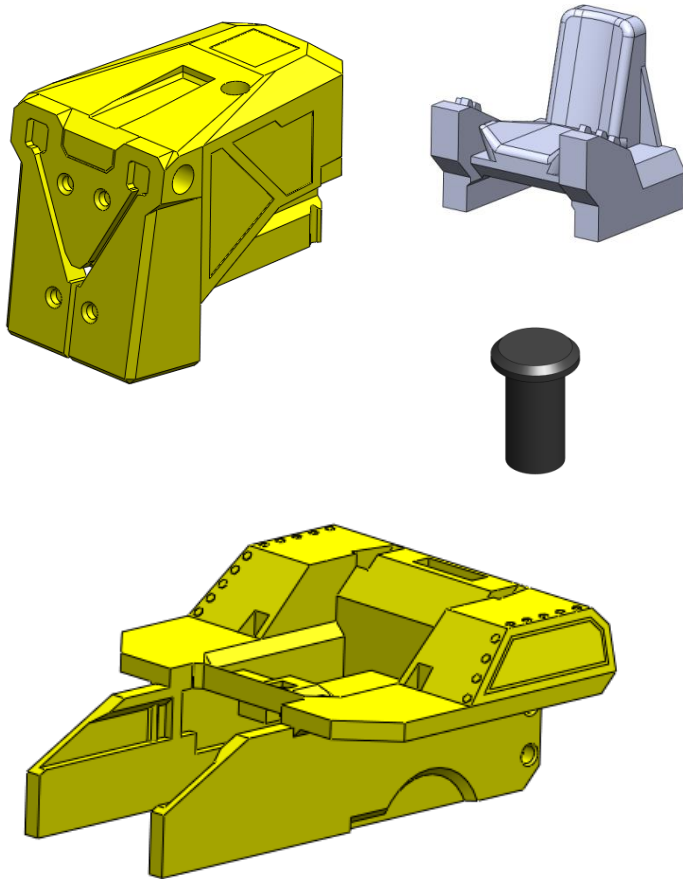
#### (Optional, for front LEDs)

Plug LEDs into the first two sockets in the LED hub

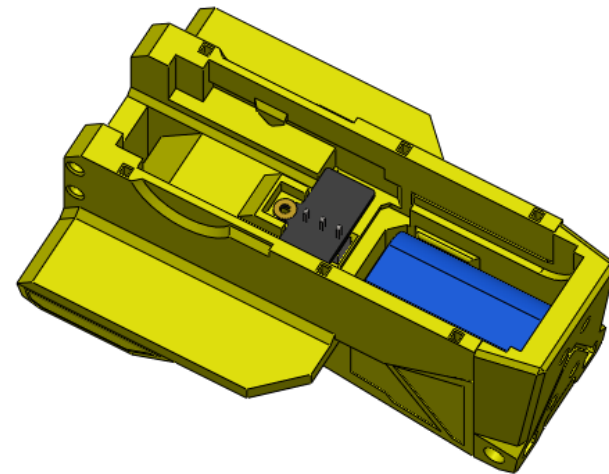
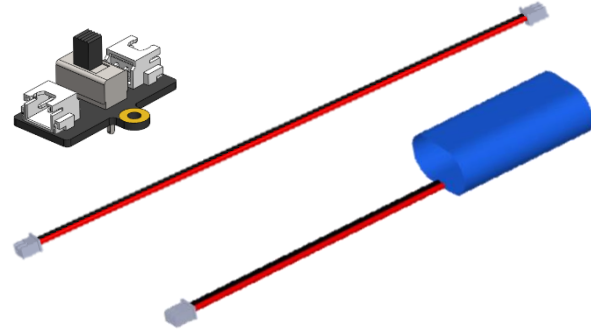


# 4 - Body Assembly

Parts:

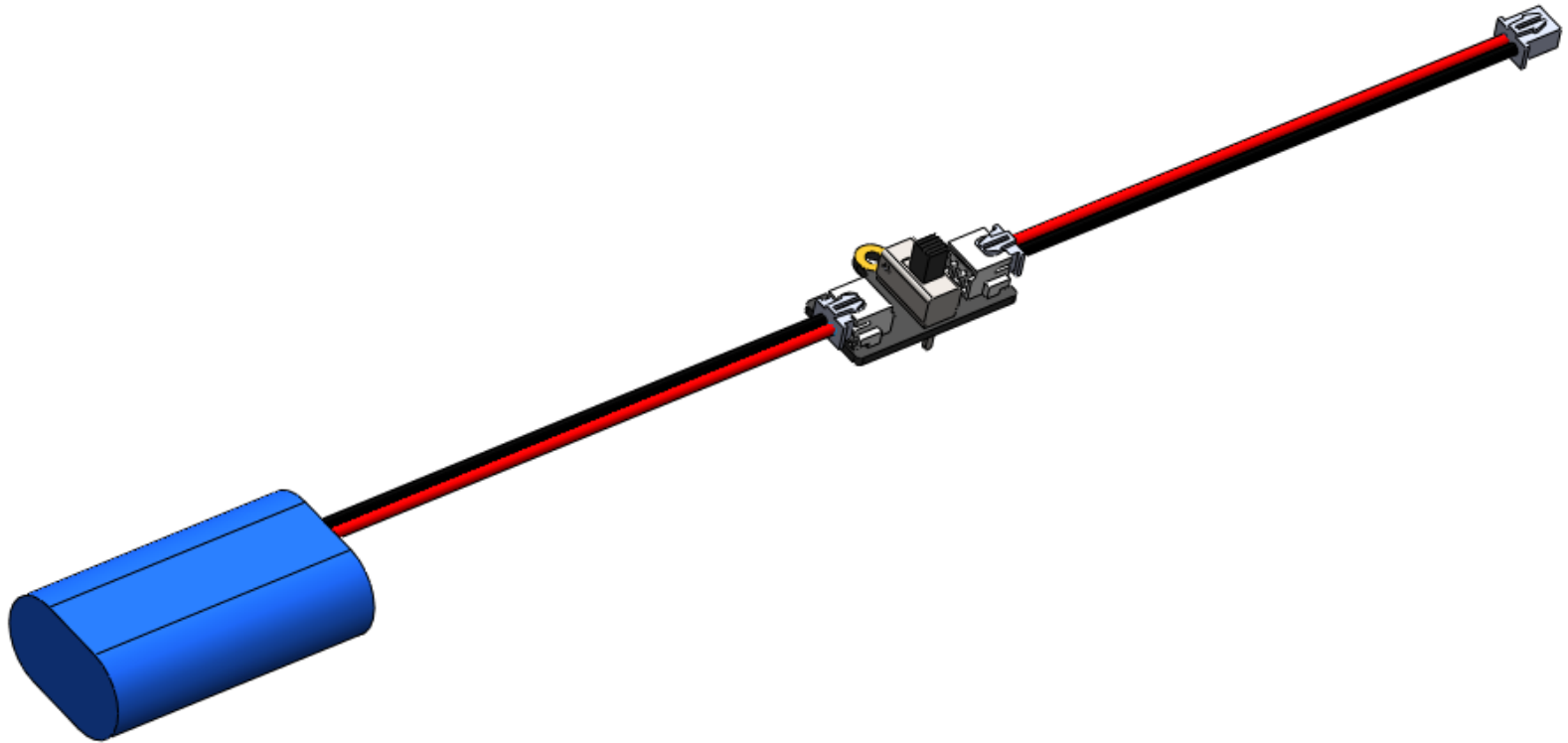


Hardware:



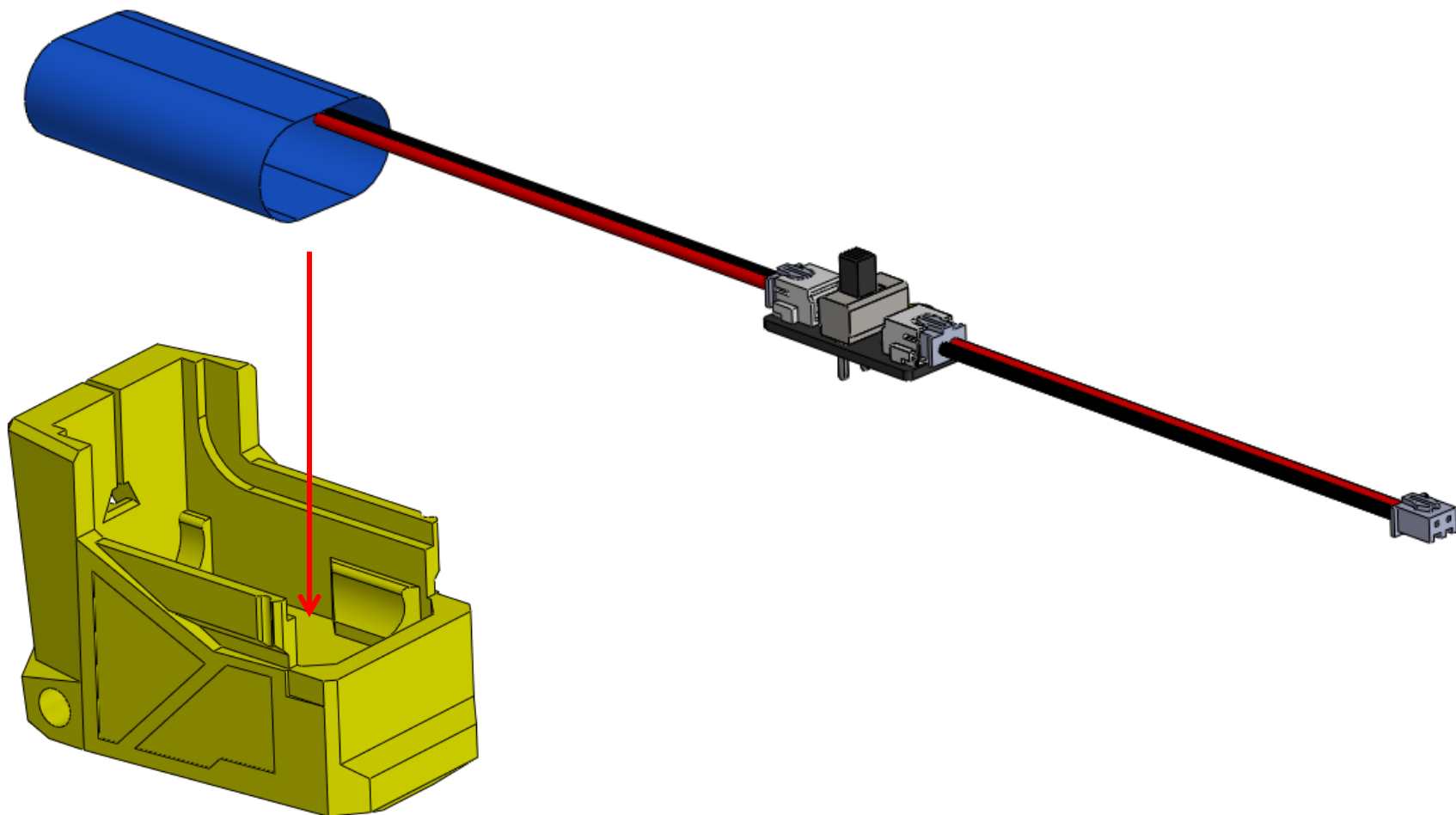
## 4.1

Connect battery and extension cable to switch

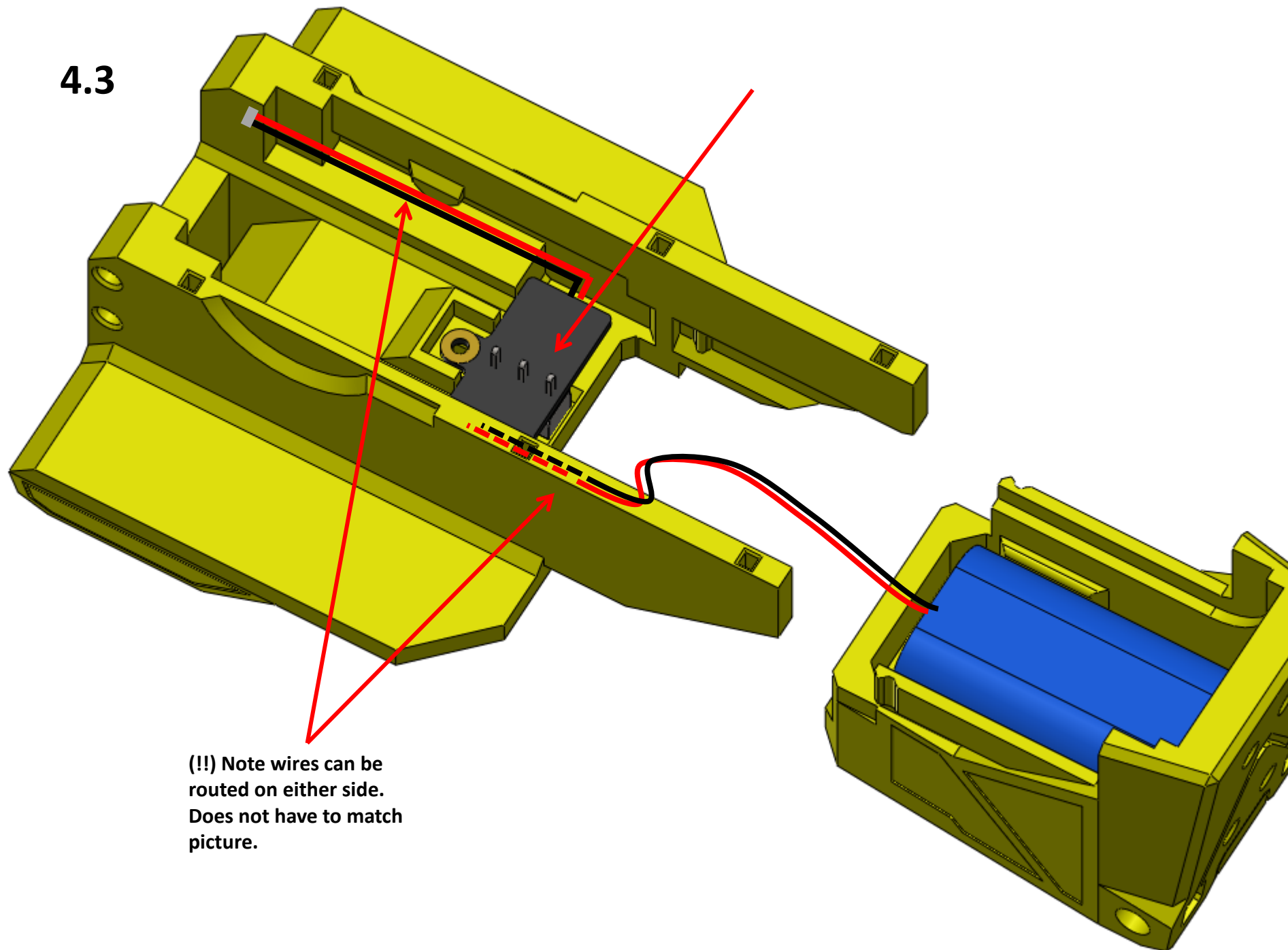




4.2

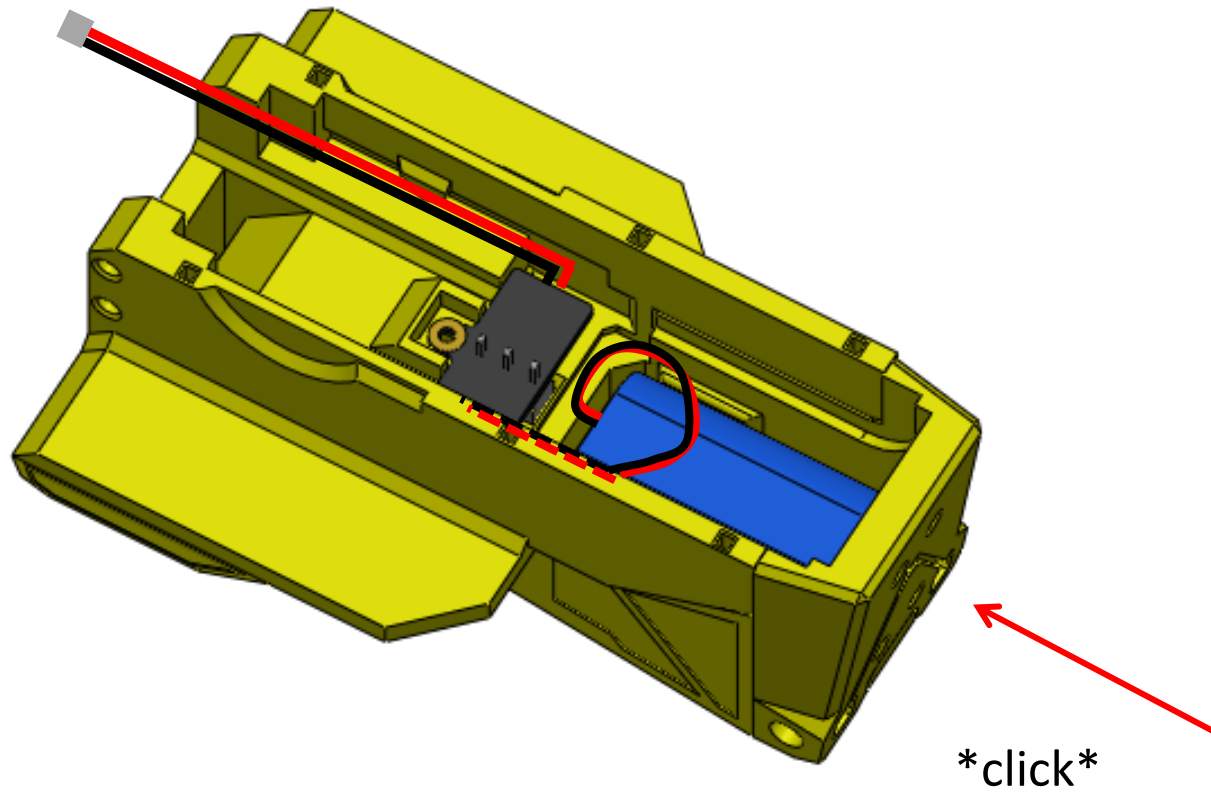


4.3

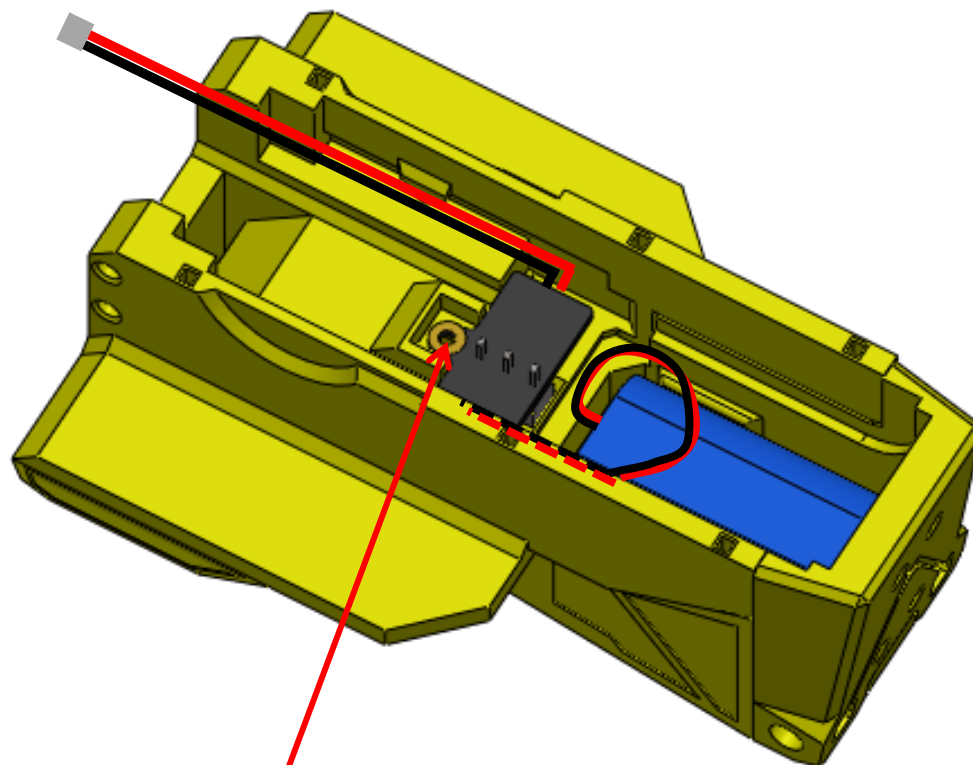


(!!) Note wires can be  
routed on either side.  
Does not have to match  
picture.

4.4

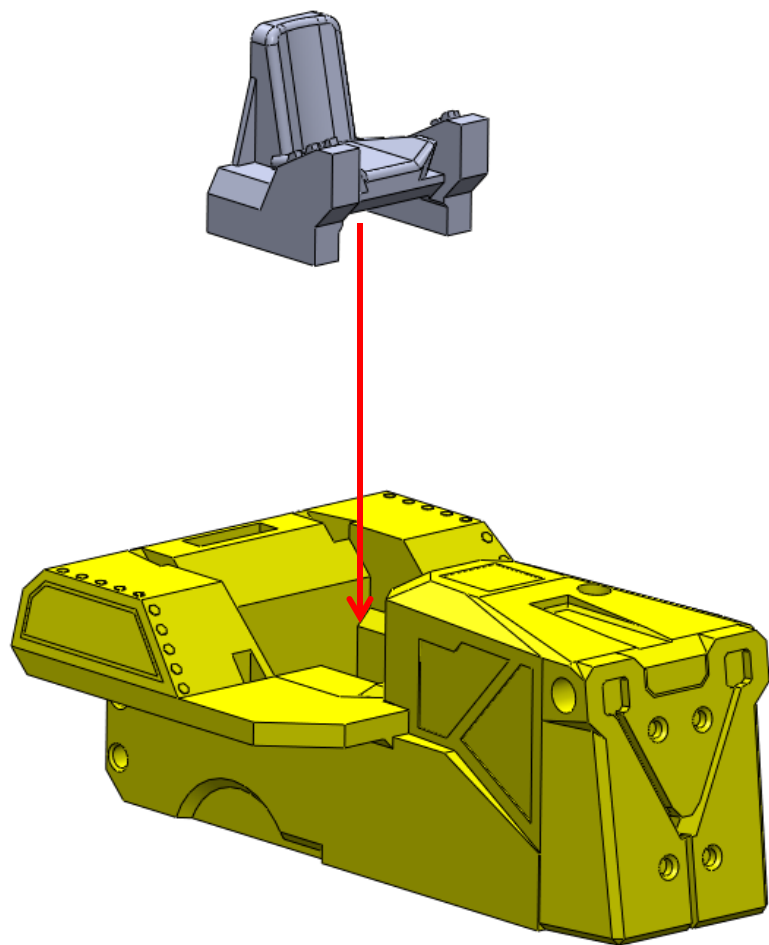


4.5

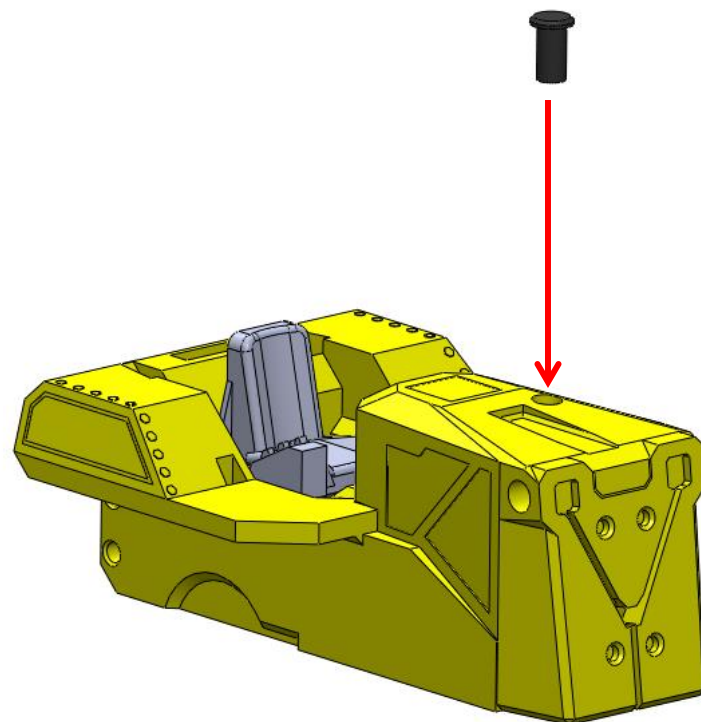


1x M2.5x6

4.6

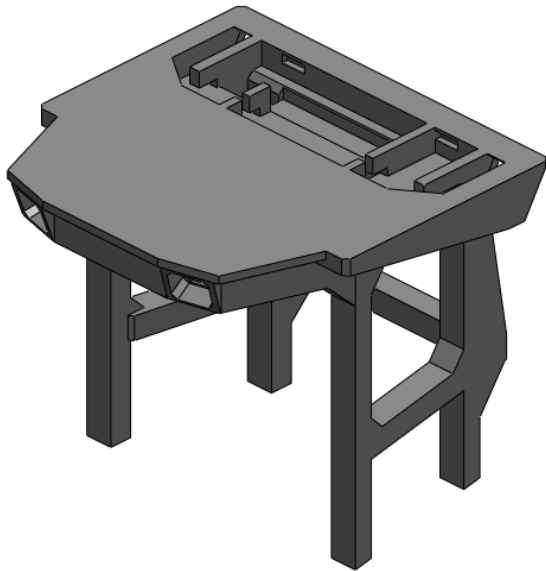
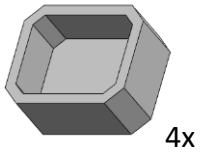


4.7

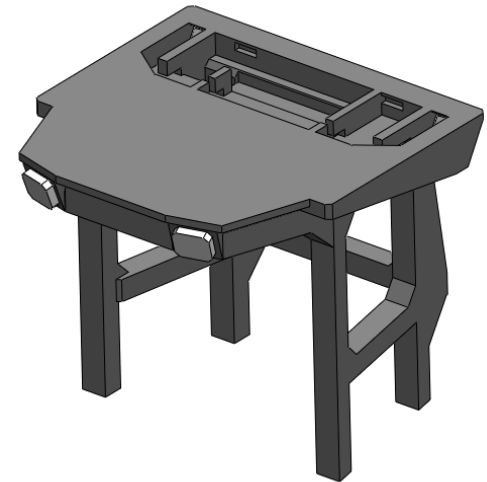


# 5 - Cab Assembly

Parts:

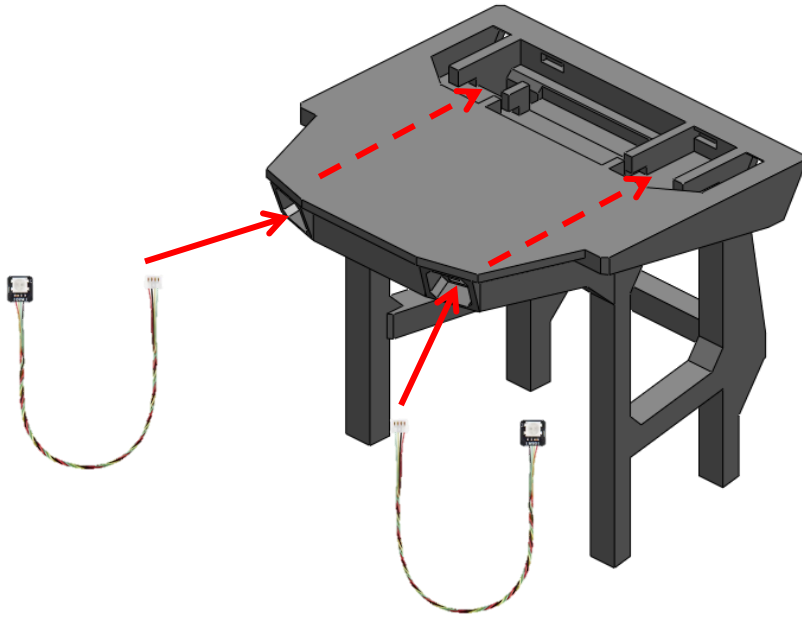


Hardware:

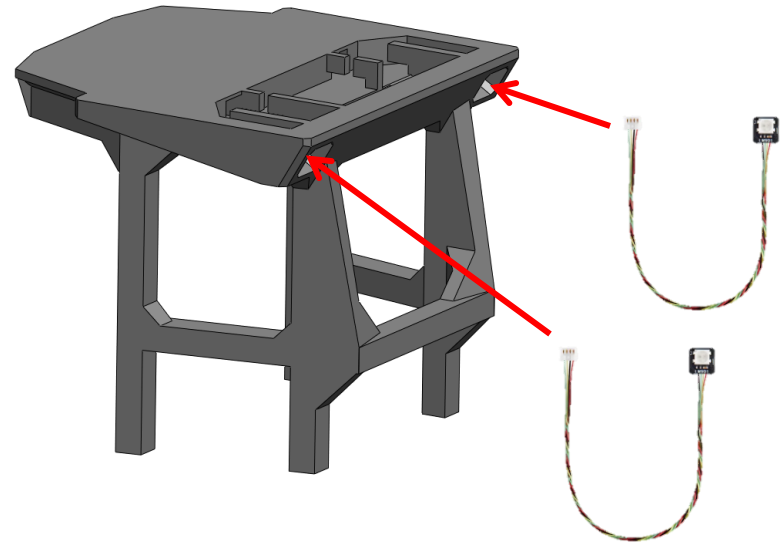


## 5.1

Thread LED wires through cab.

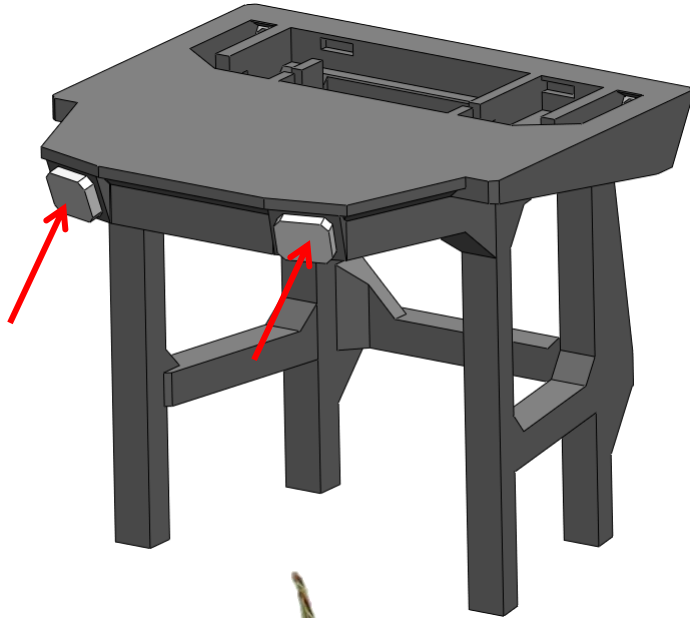


## 5.2

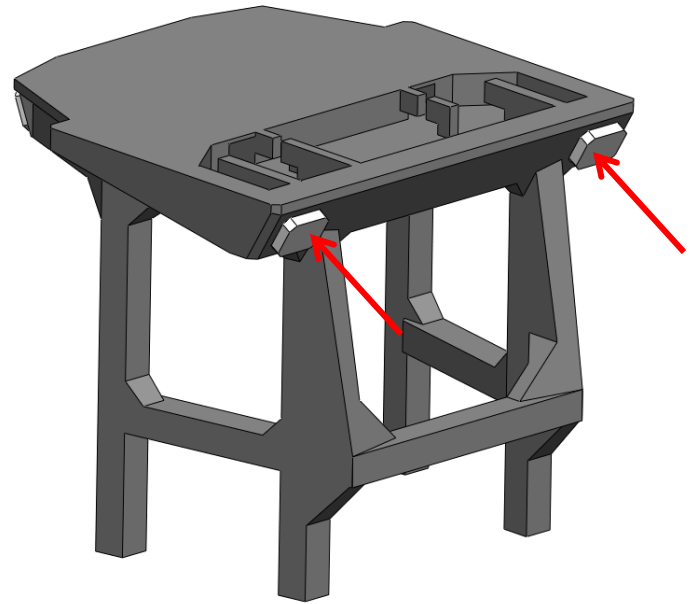




5.3



5.4

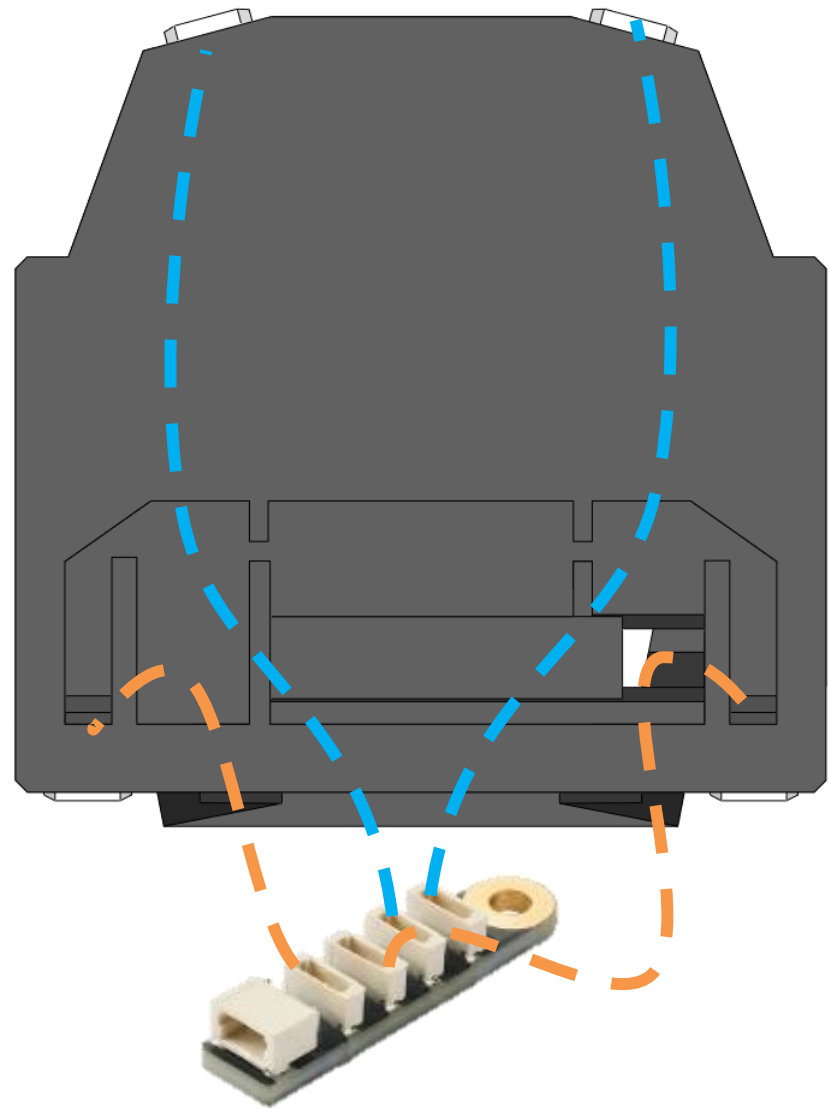
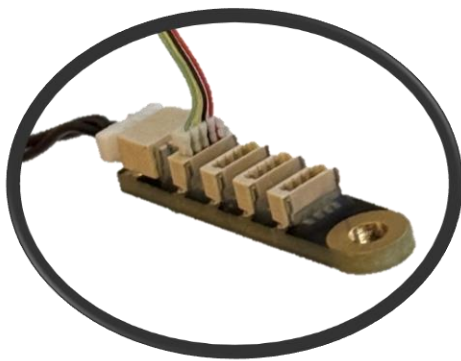


Note: Light Caps should be installed even if not using installing cab LEDs

## 5.5

Plug LED Cables in Hub, order as shown.

- **Front 2 LEDs plug in nearest screw hole in hub**
- **Rear 2 LEDs plug in furthest from screw hole in hub**



(!!) Be careful with LED connectors! Correct orientation is shown – Colored side towards screw hole.

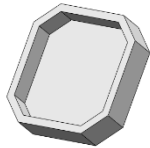
## 5.6

Position Hub and bundle wires  
under clips

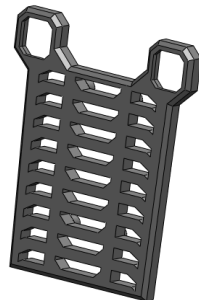
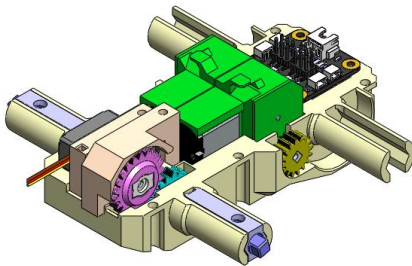
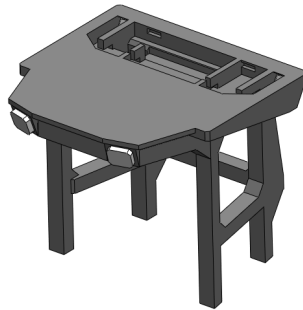
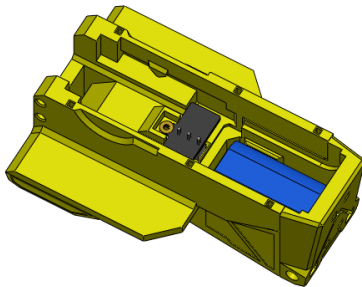
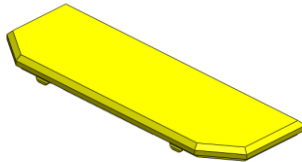


# 6 – Chassis and Body Assembly

Parts:



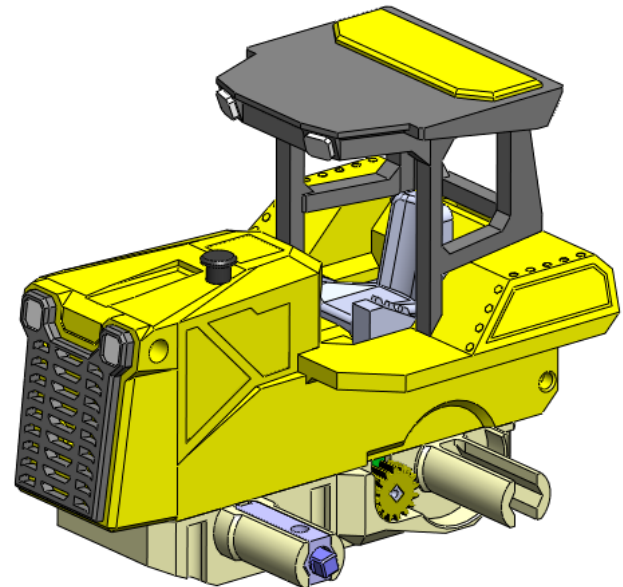
2x



Hardware:



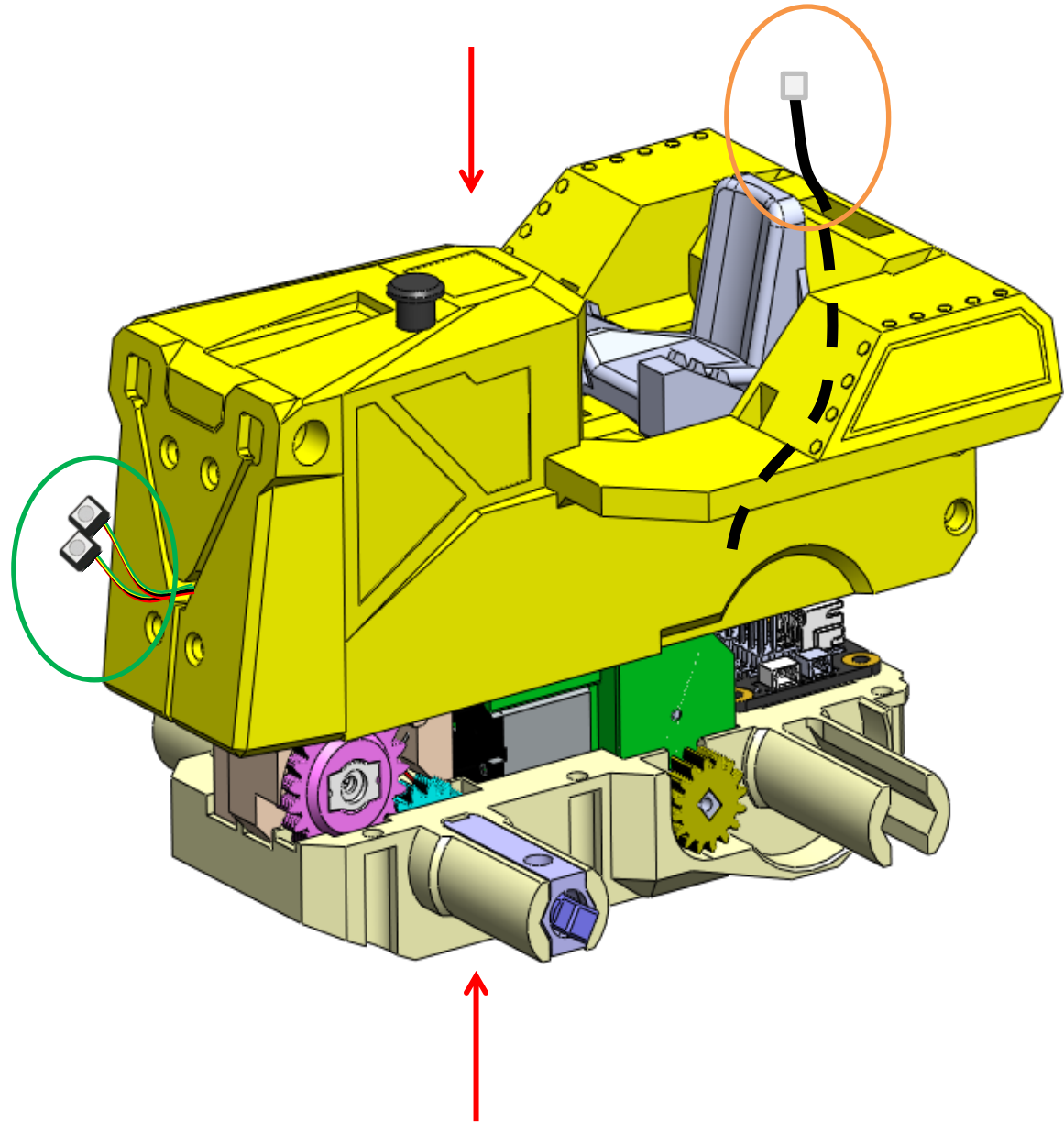
6x



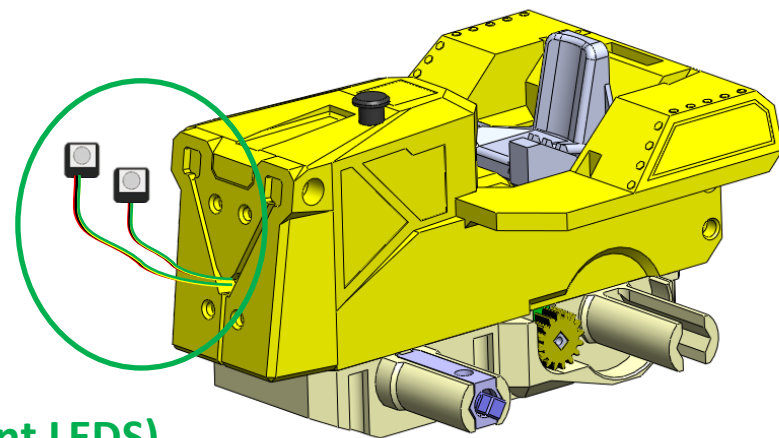
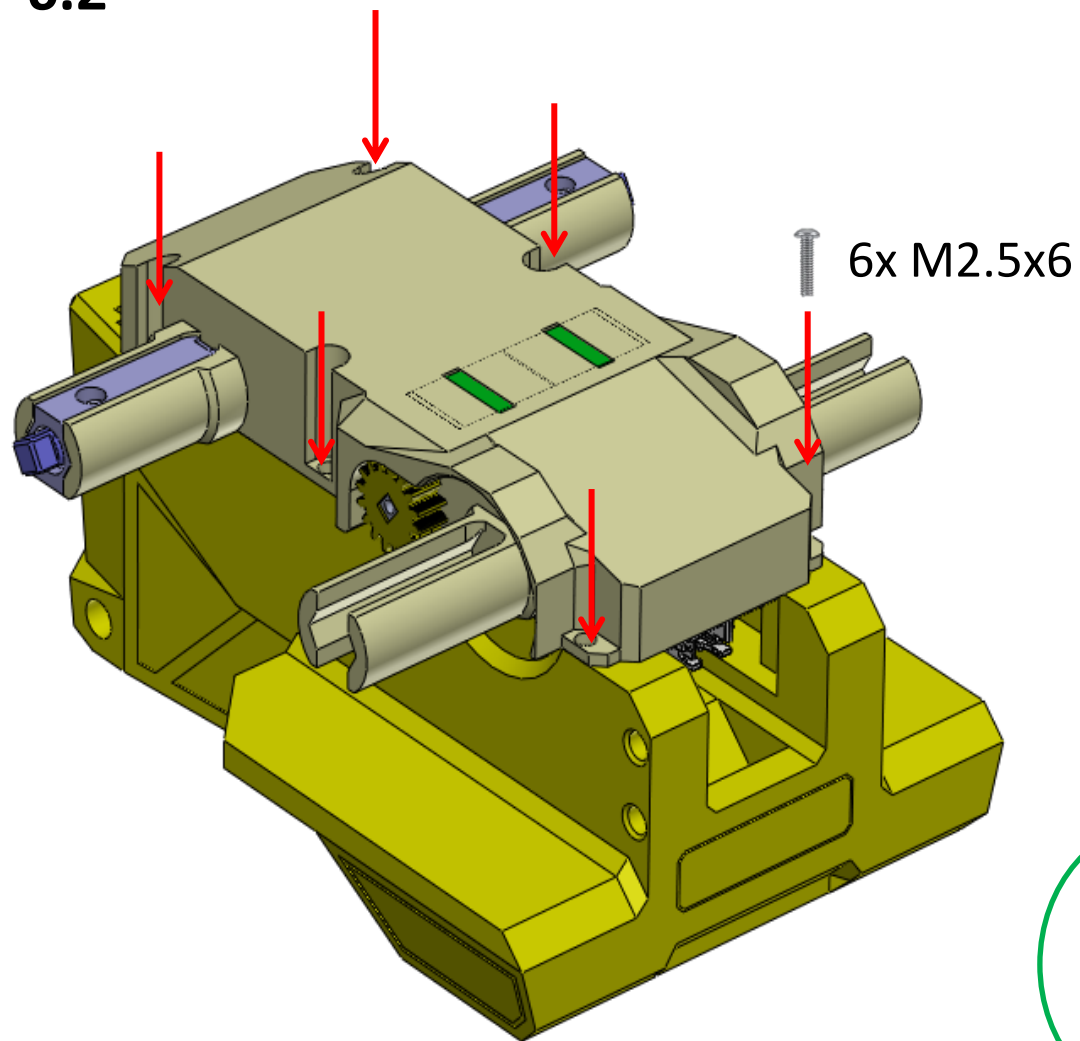
## 6.1

Slide two halves together.

- **(for Cab LEDS)**  
Make sure LED hub cable (right side of board) is routed through the slot at the rear of the body.
- **(Optional, for front LEDS)**  
Make sure both front LEDs are slid through the slot in the front



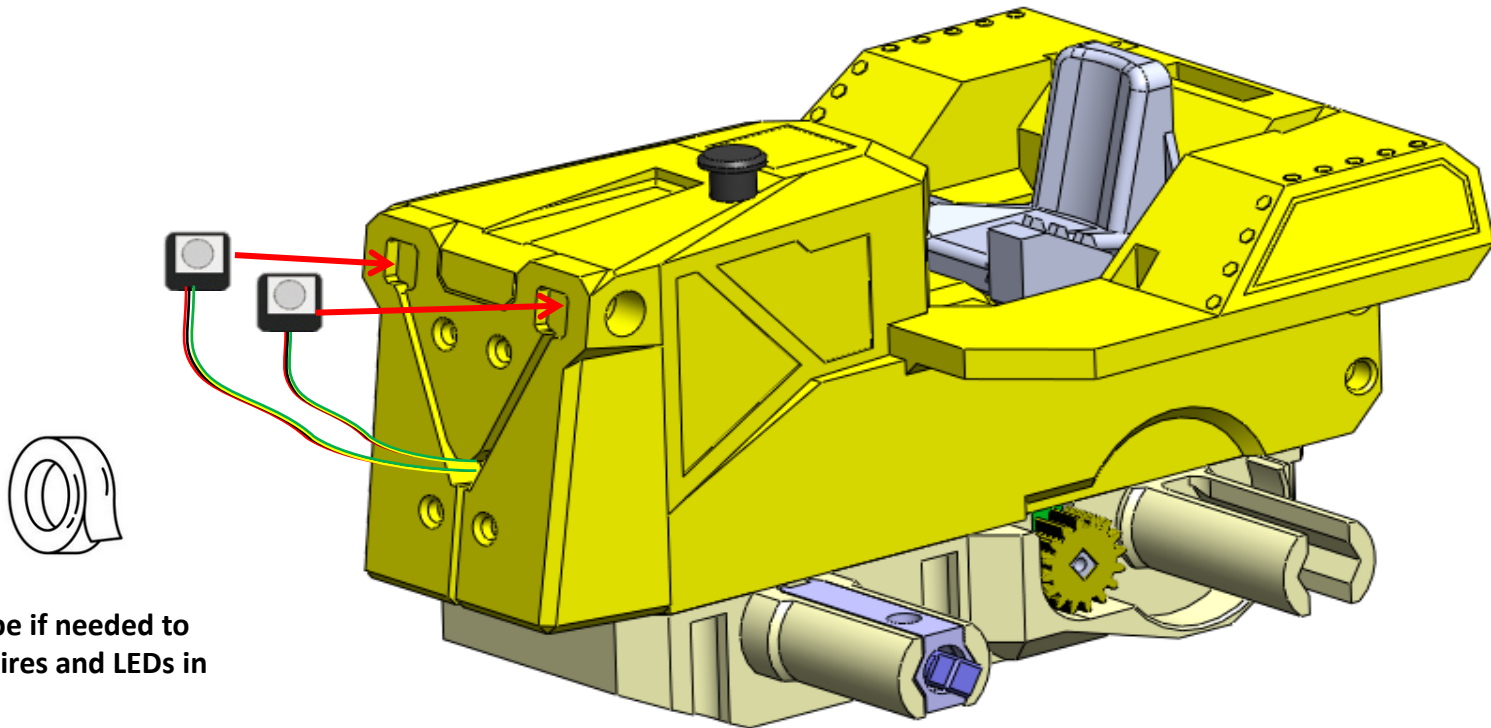
6.2



(Optional, for front LEDS)

## 6.3

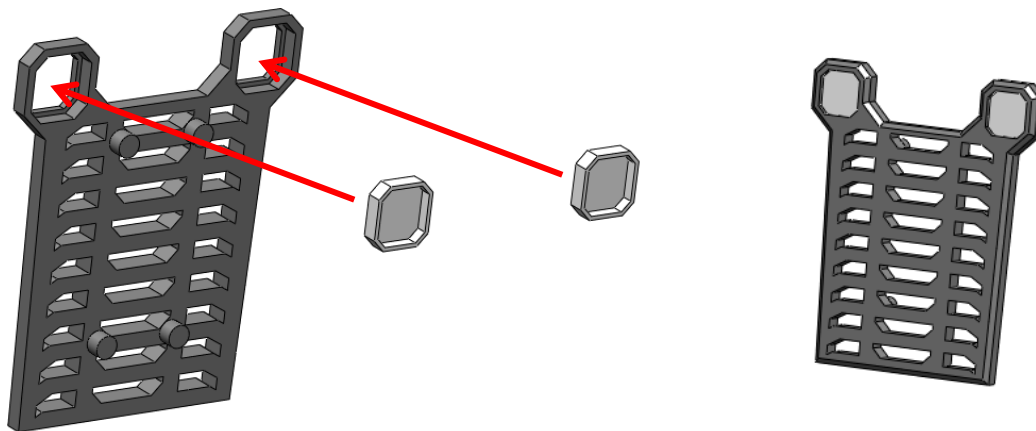
(Optional, for front LEDs)



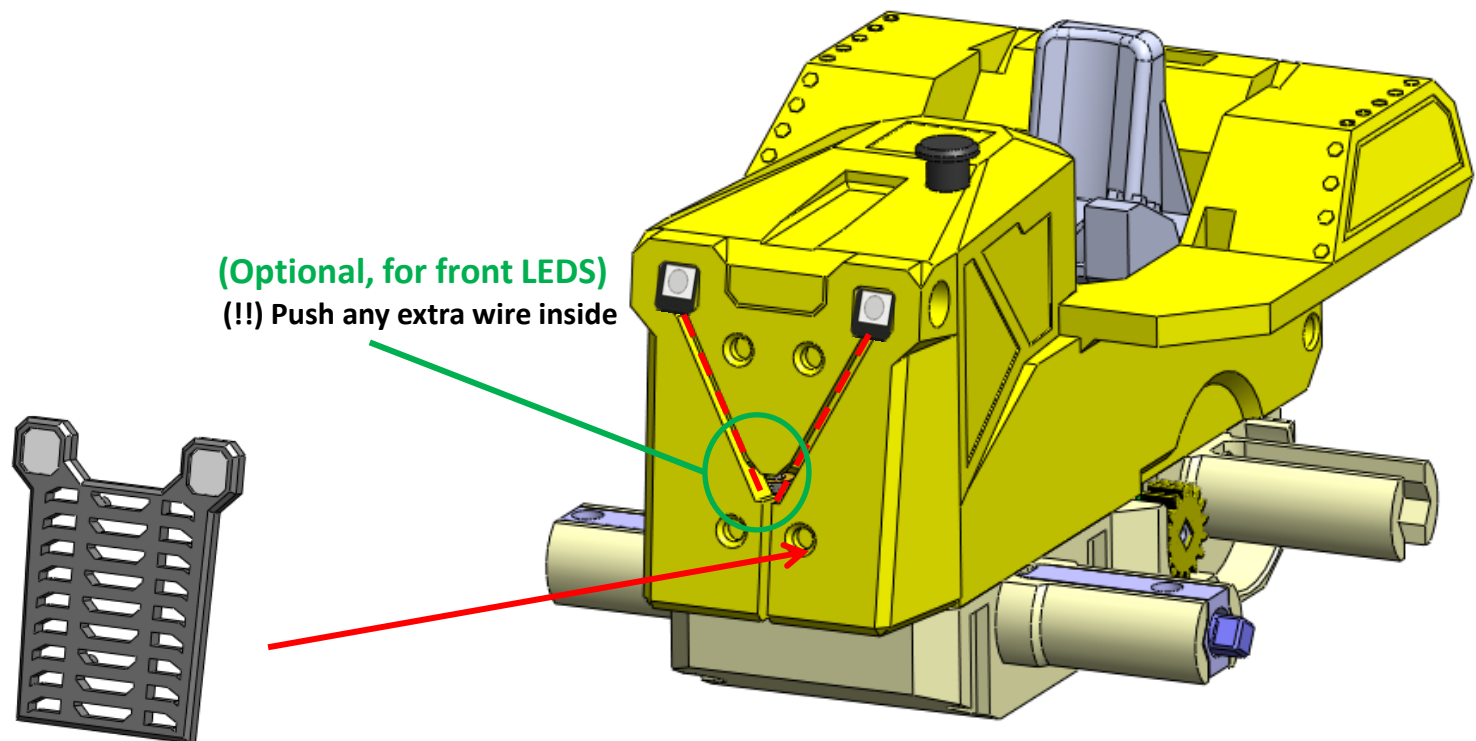
Use tape if needed to  
keep wires and LEDs in  
place



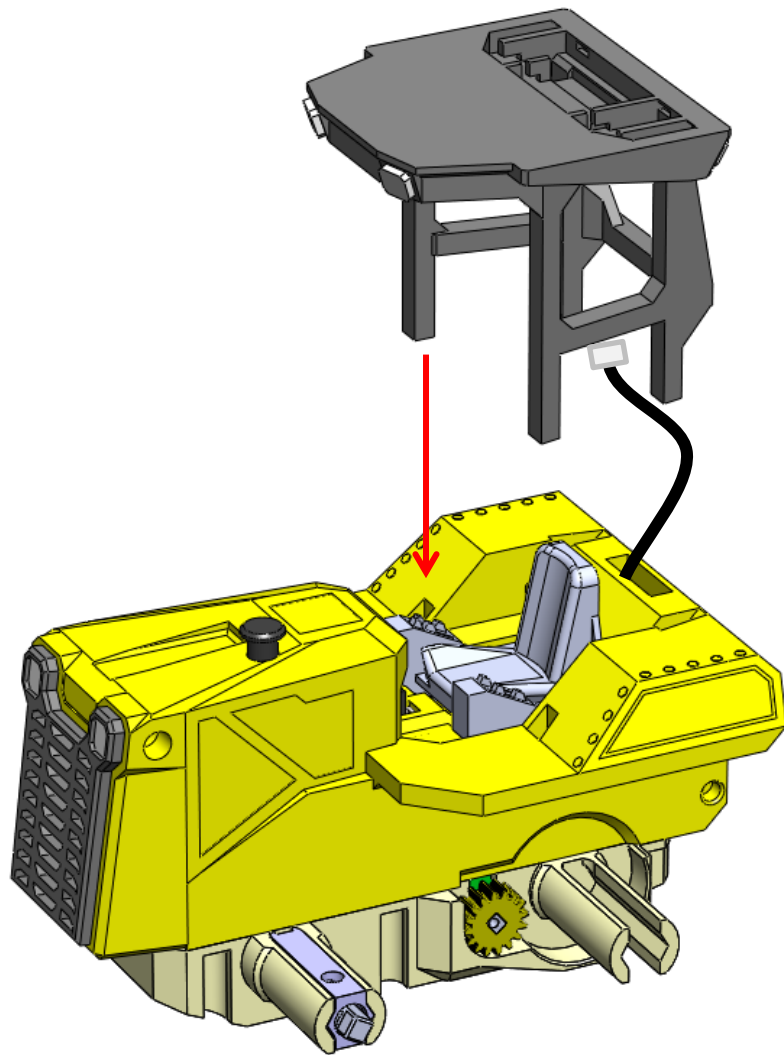
6.4



6.5



6.6



Make sure wire is inside cab

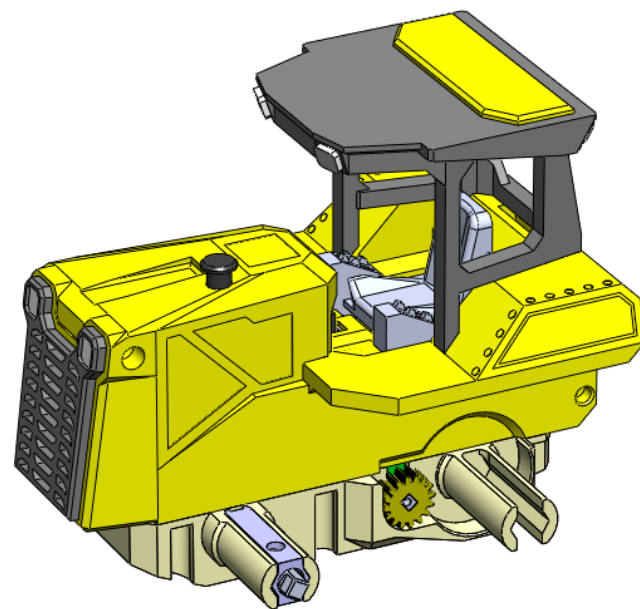
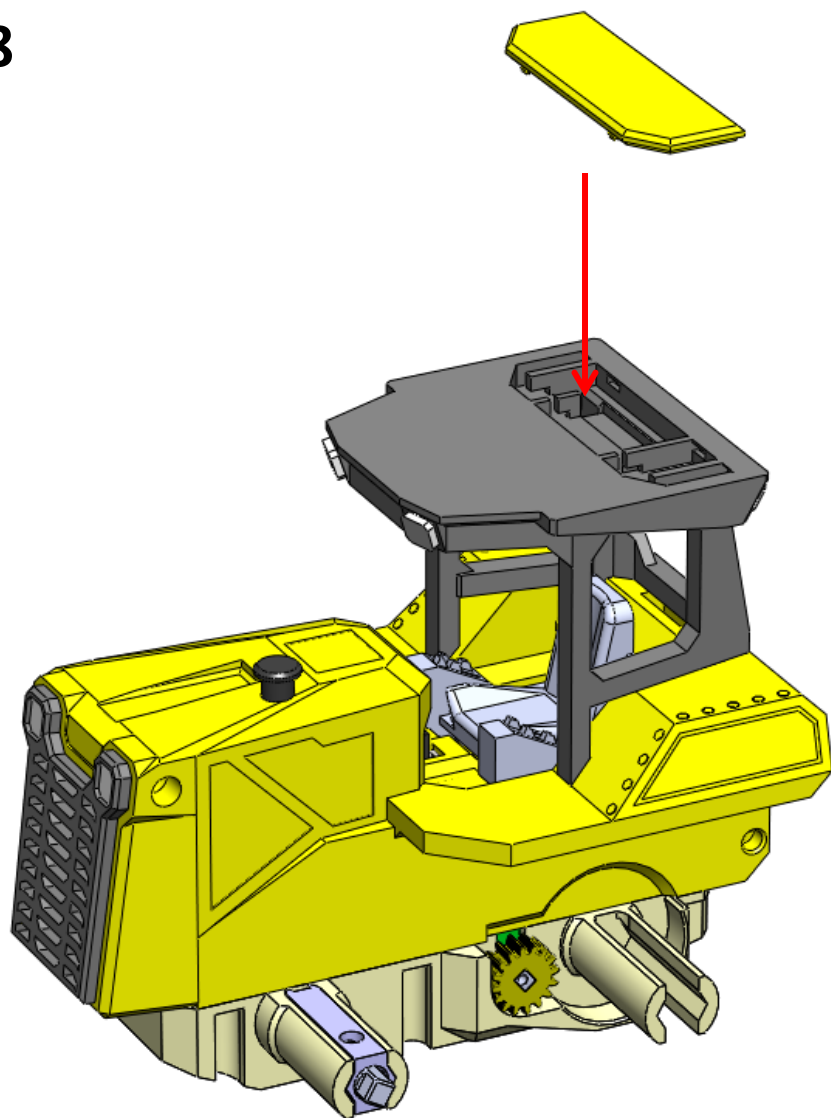


## 6.7

Connect cable to LED Hub.  
Tweezers can help assembly.

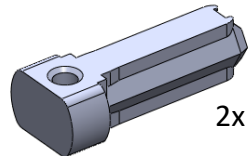
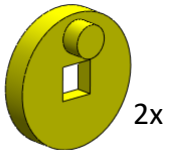
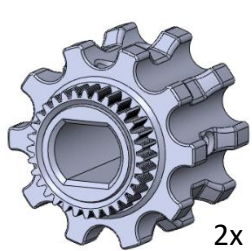
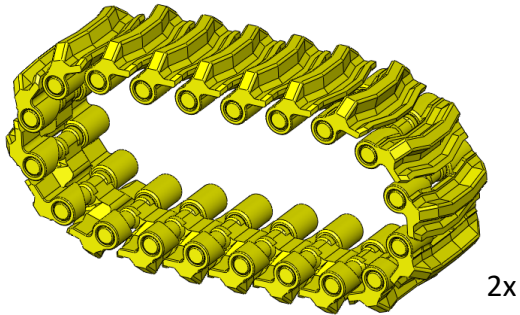


6.8

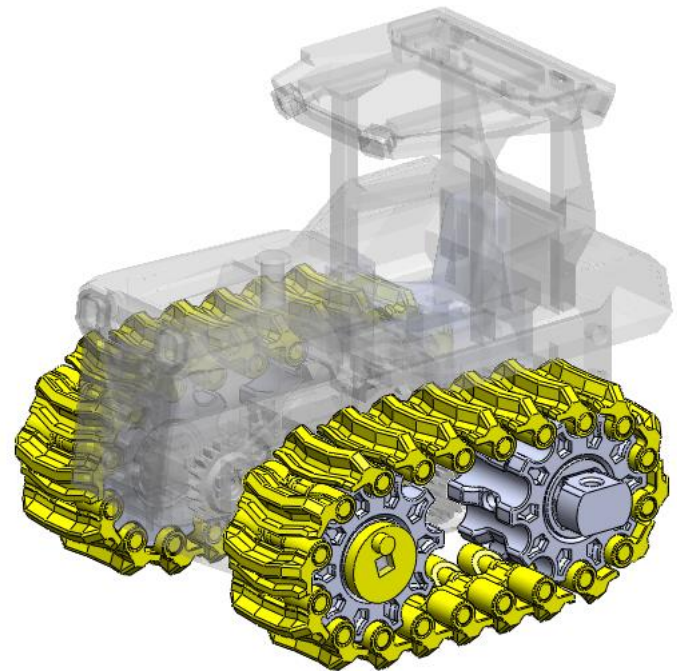


# 7 – Track Assembly

Parts:



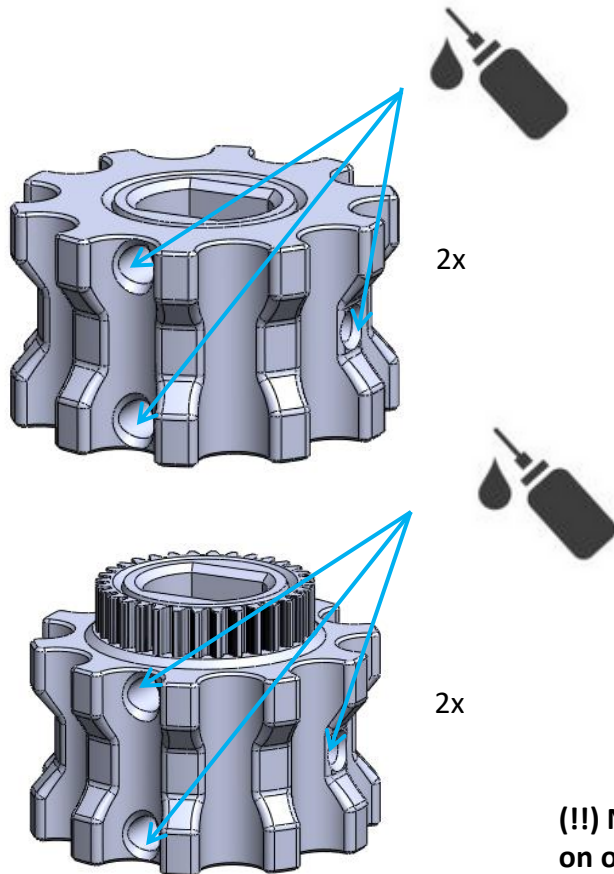
Hardware:





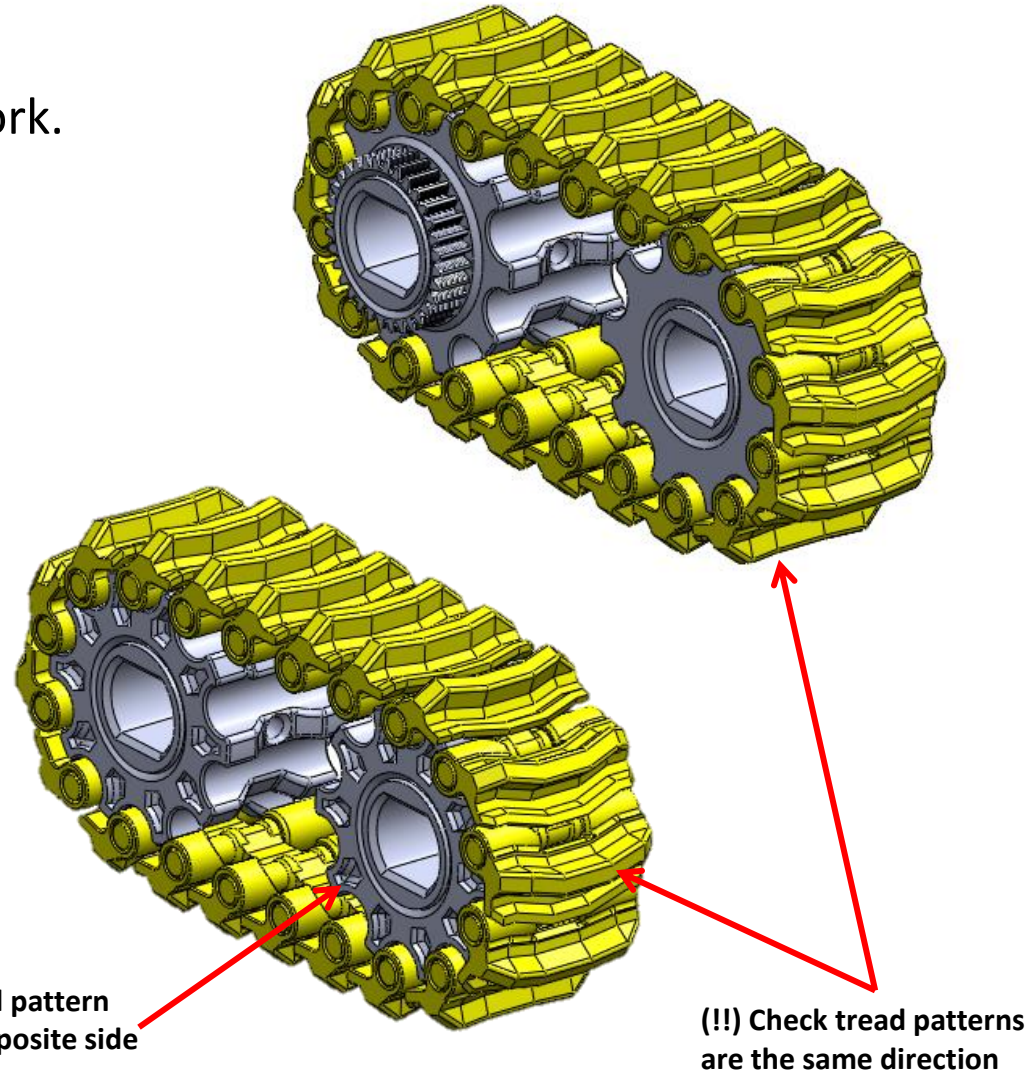
## 7.1

Use the holes in the sprockets to apply lubricant. A light oil is preferable to grease – a common penetrant oil such as WD40 will work.

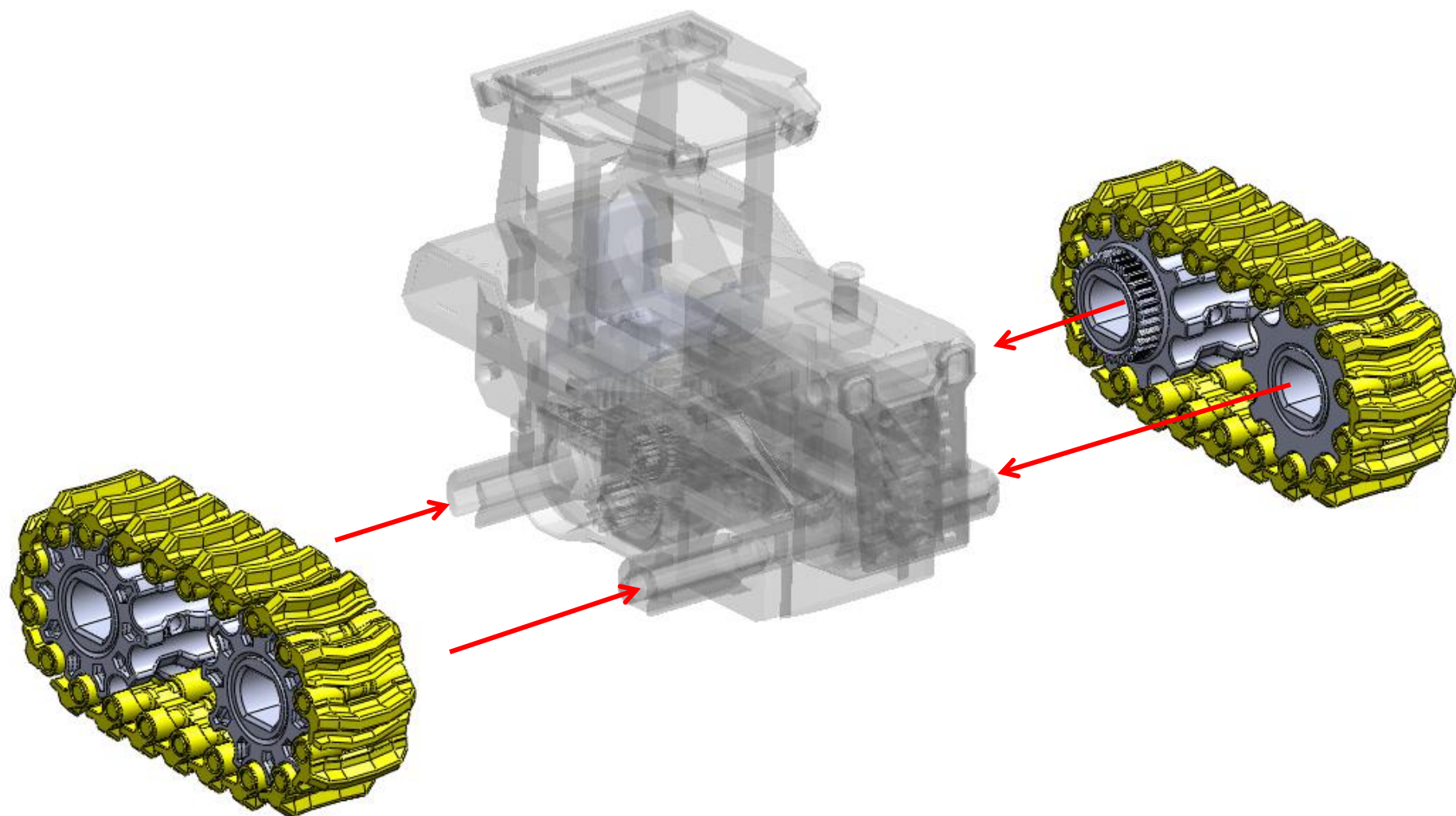


## 7.2

Line up the sprockets with the tracks

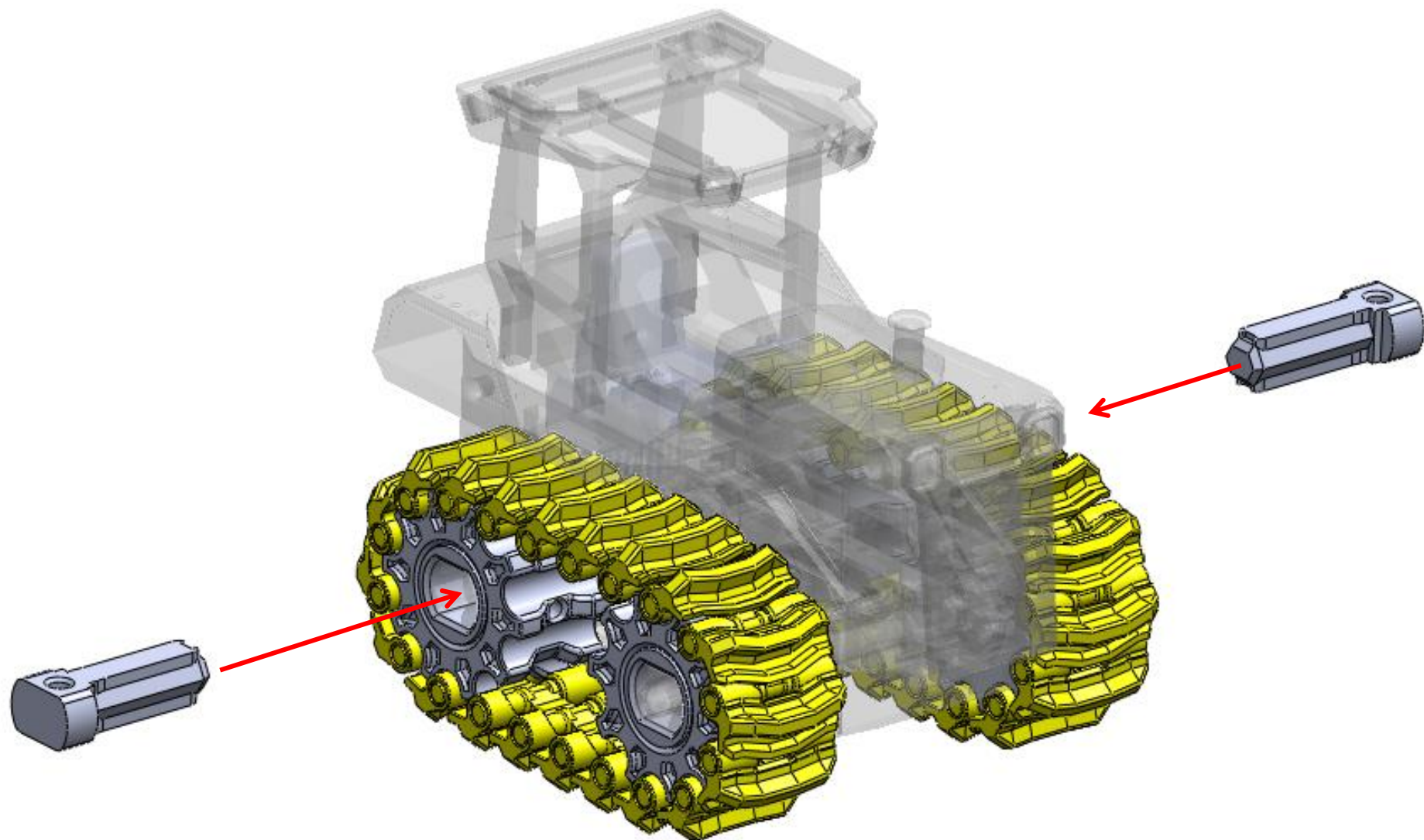


## 7.3



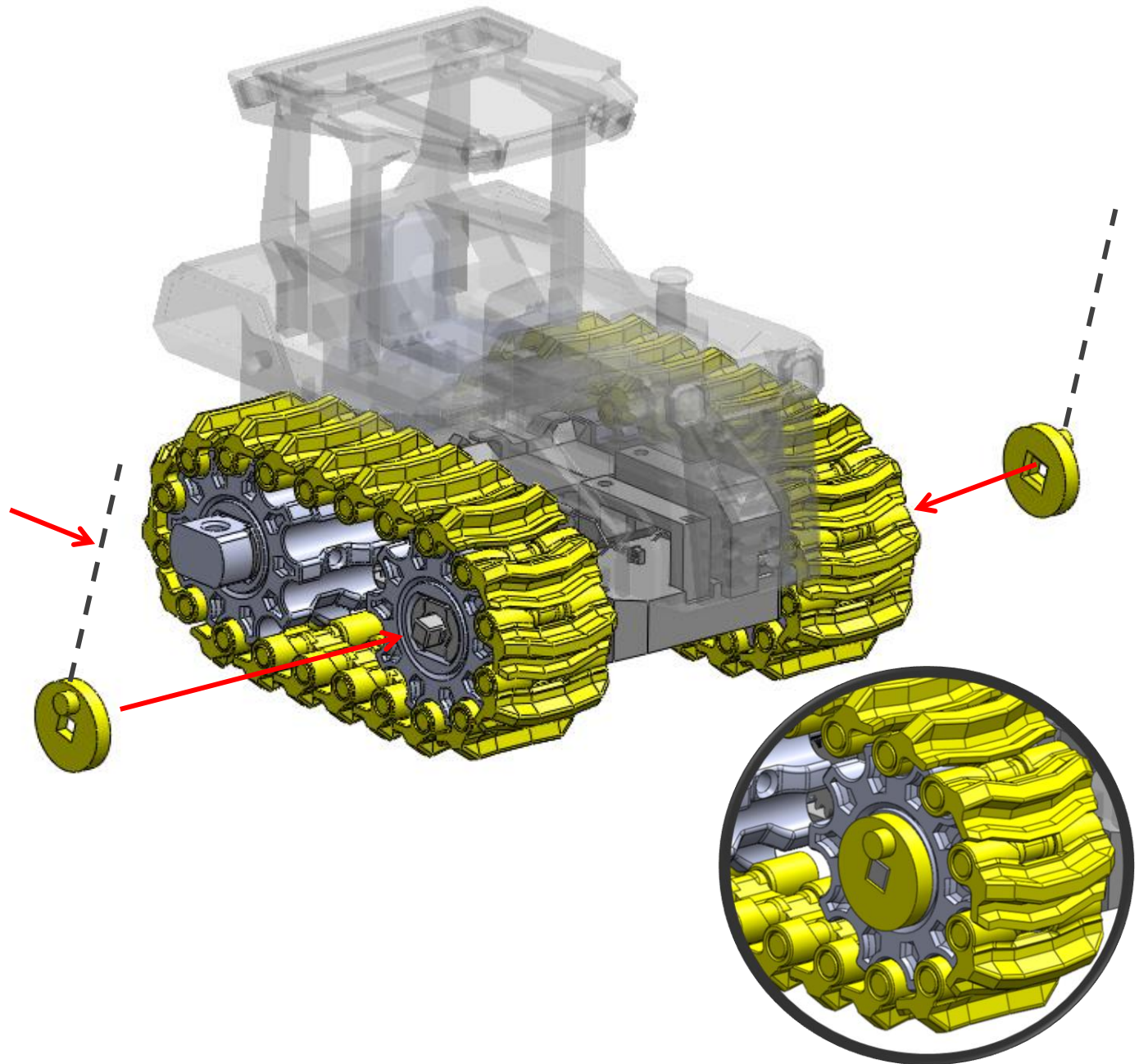


7.4



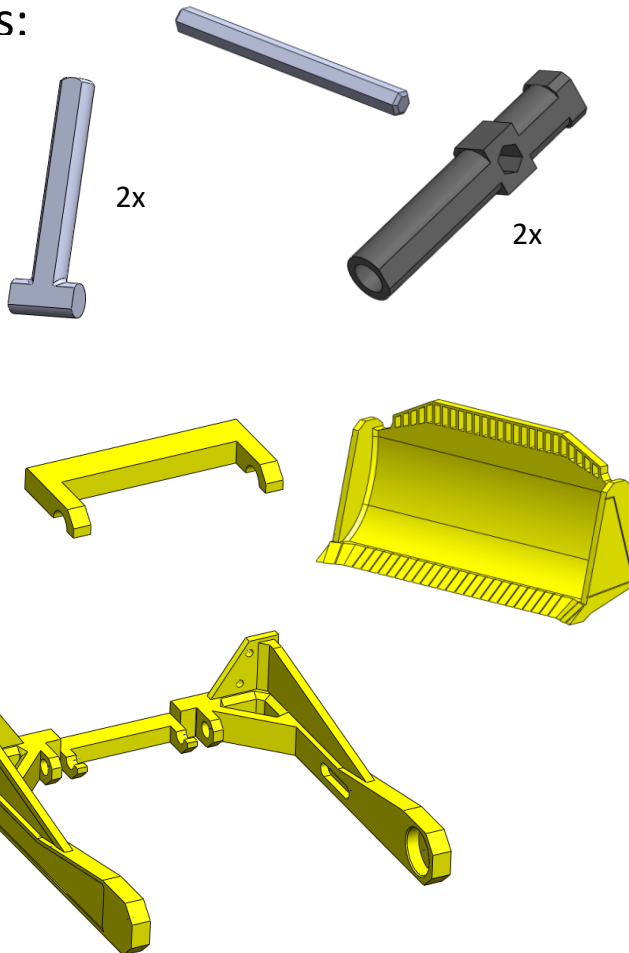
## 7.5

**(!!)** Make sure cylinders on both sides are aligned in the same direction

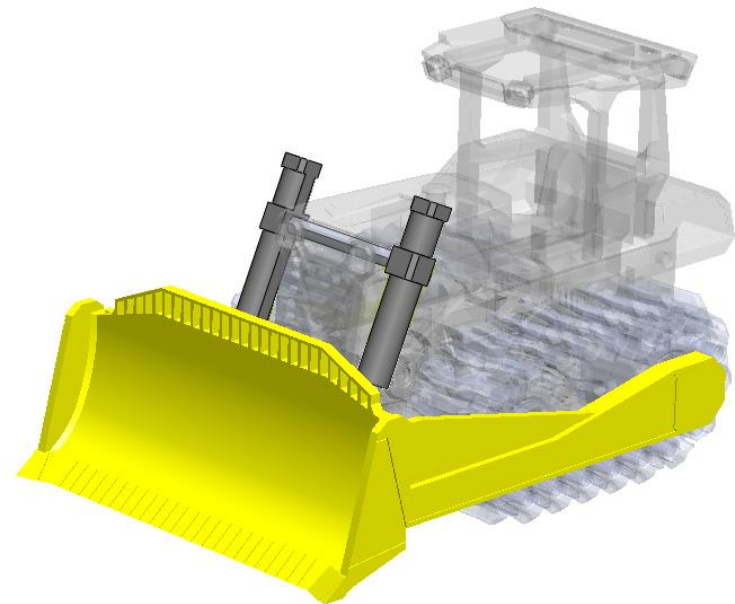


# 8 – Blade Assembly

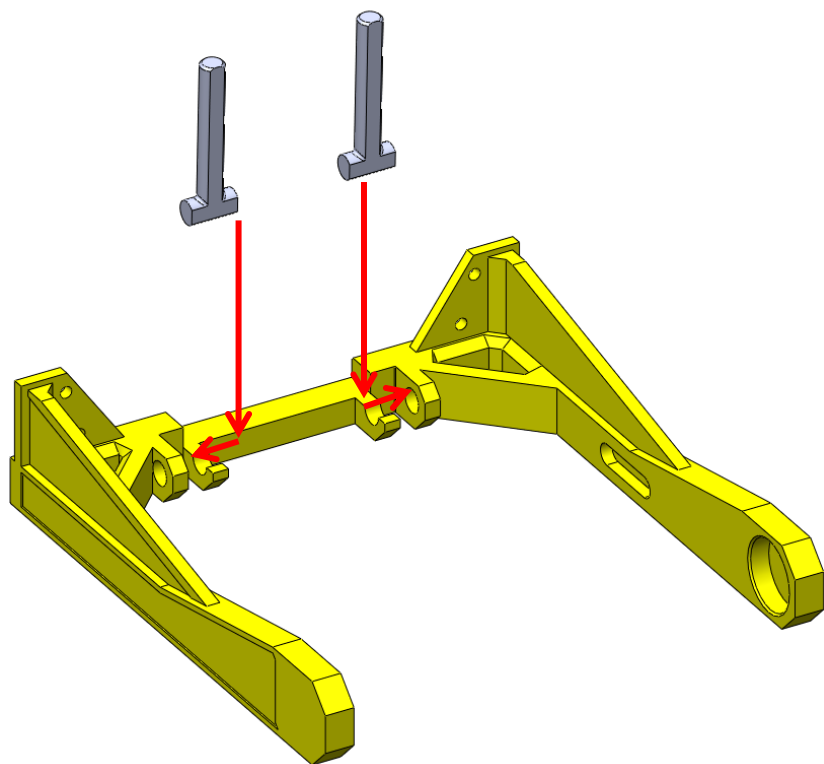
Parts:



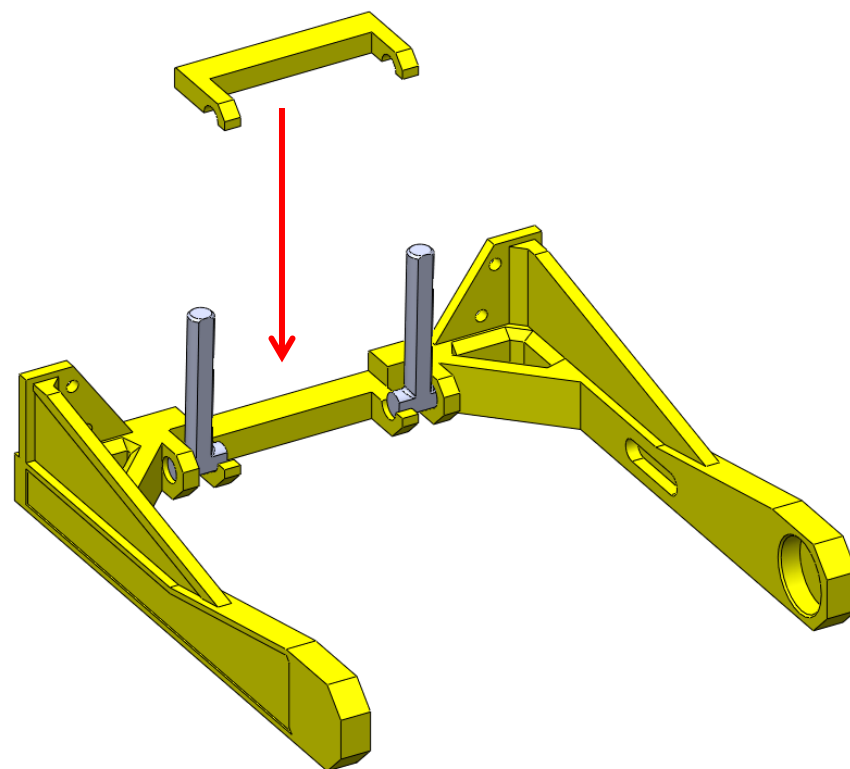
Hardware:



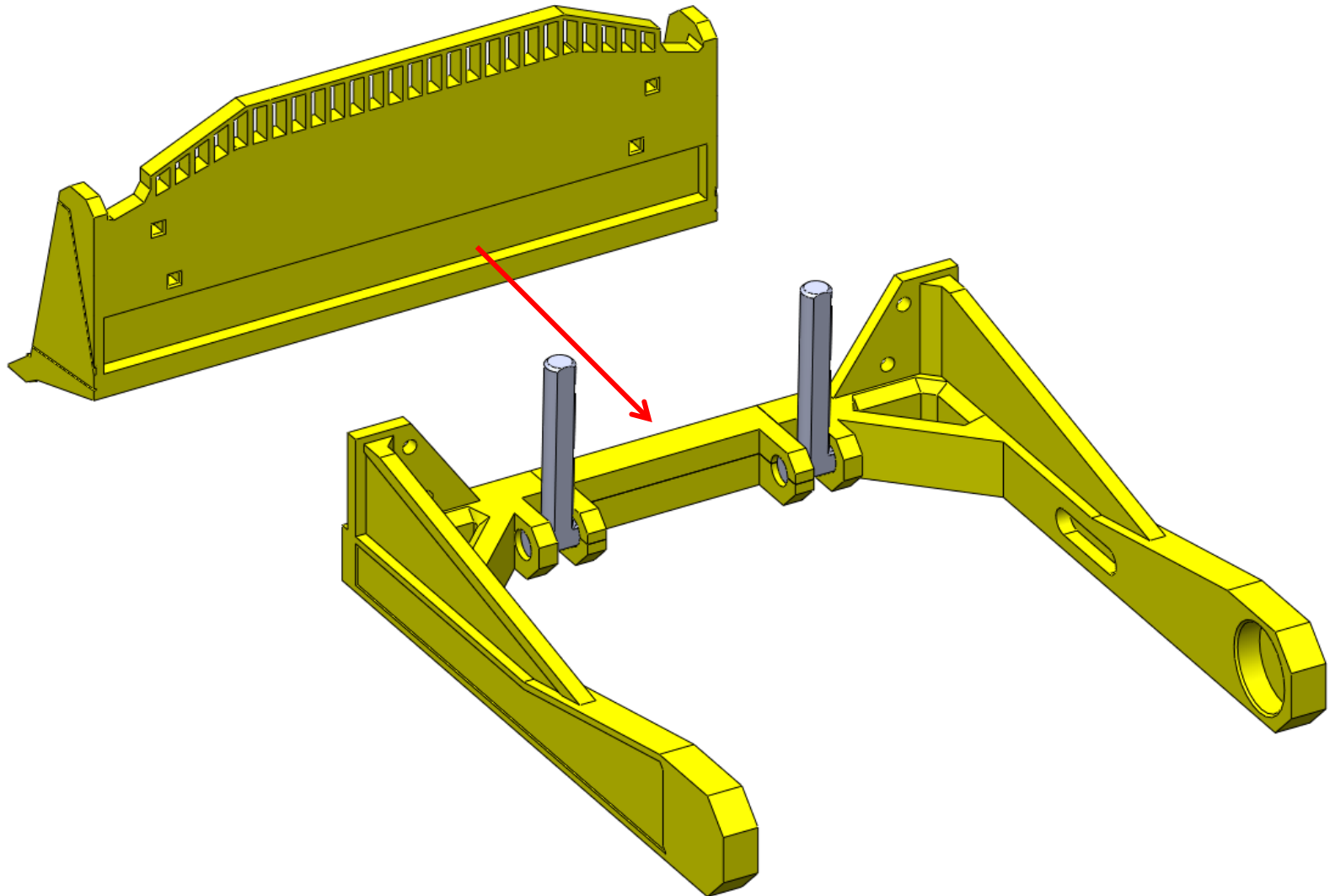
8.1



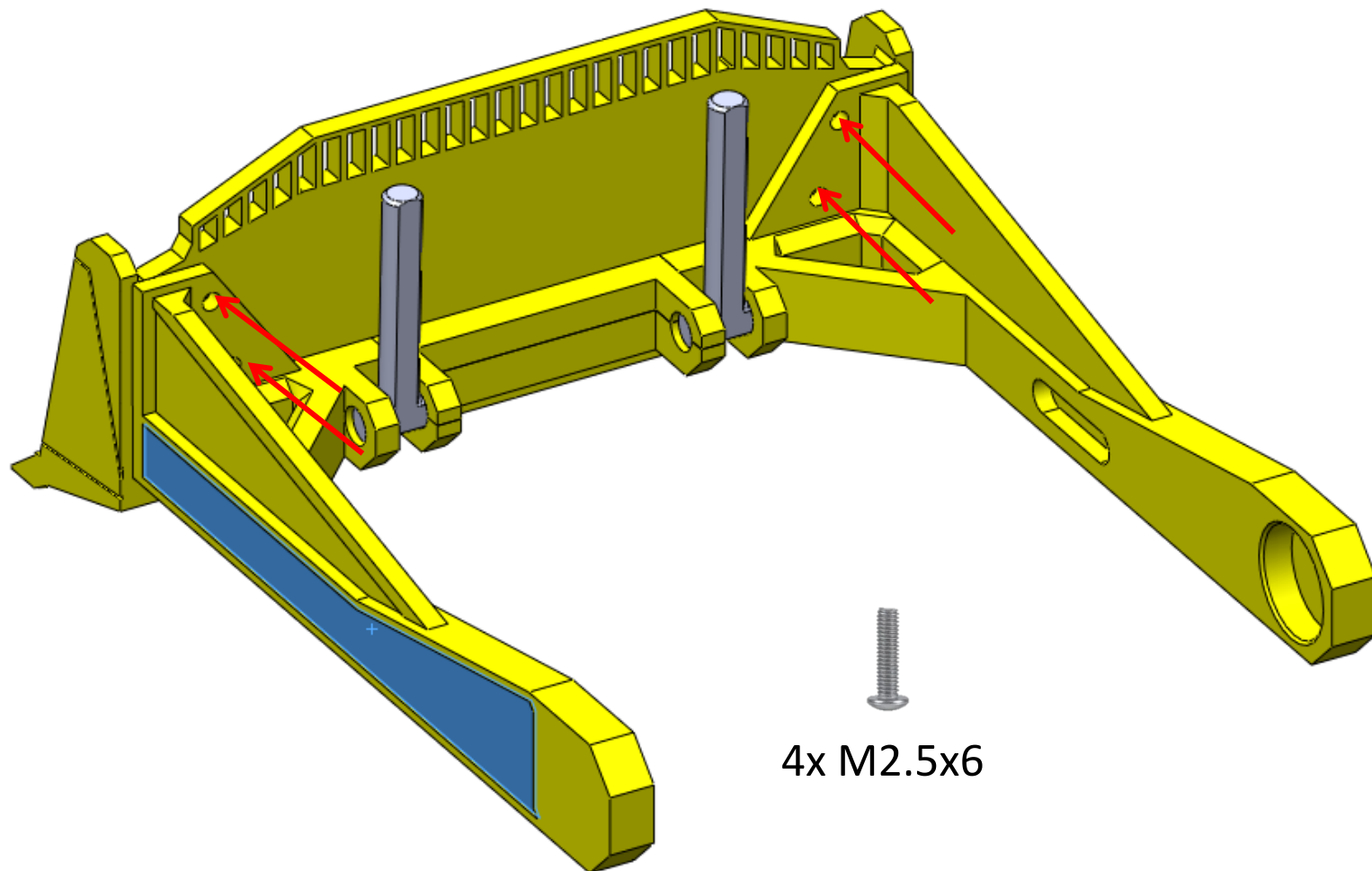
8.2



## 8.3

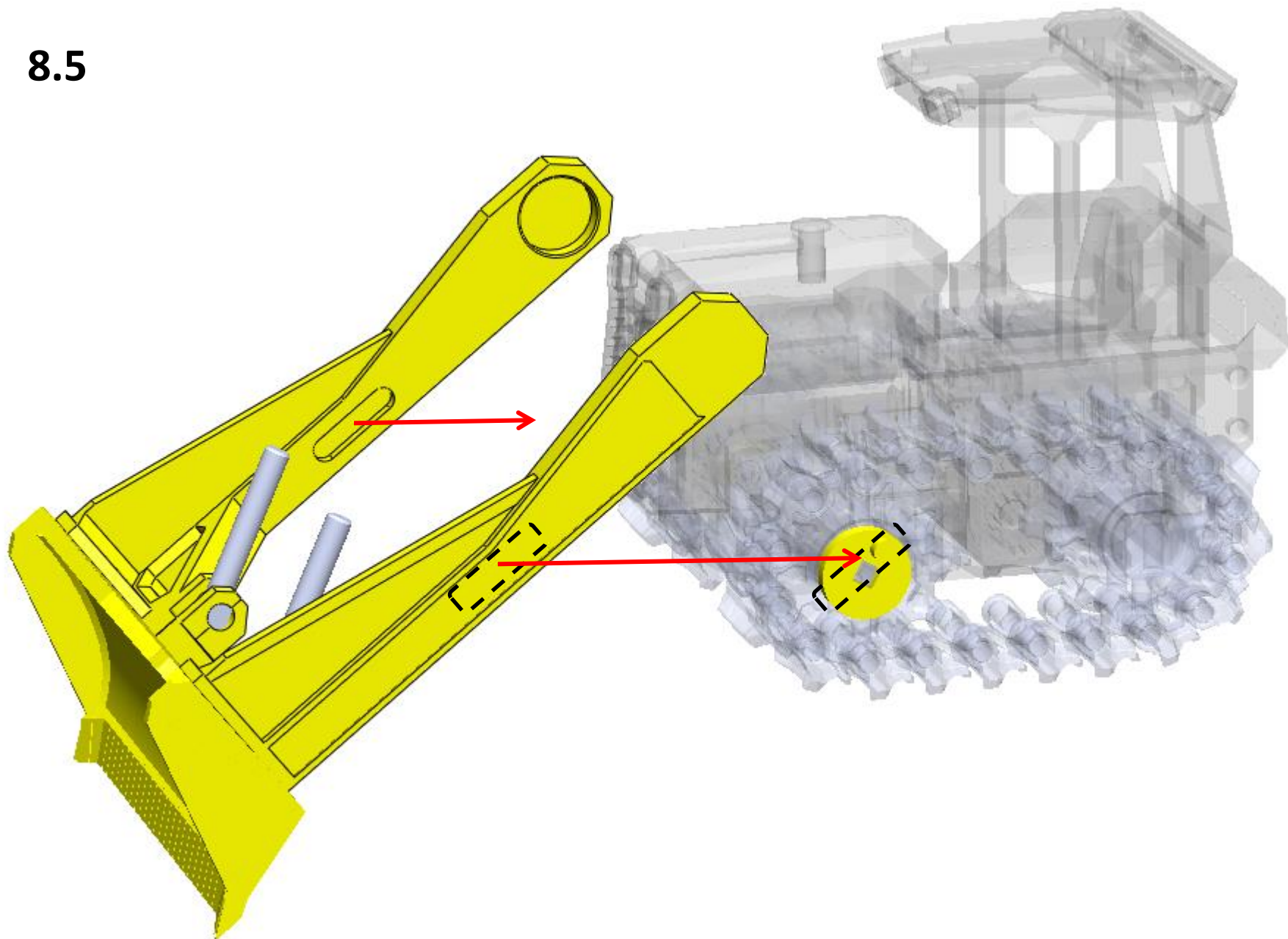


8.4



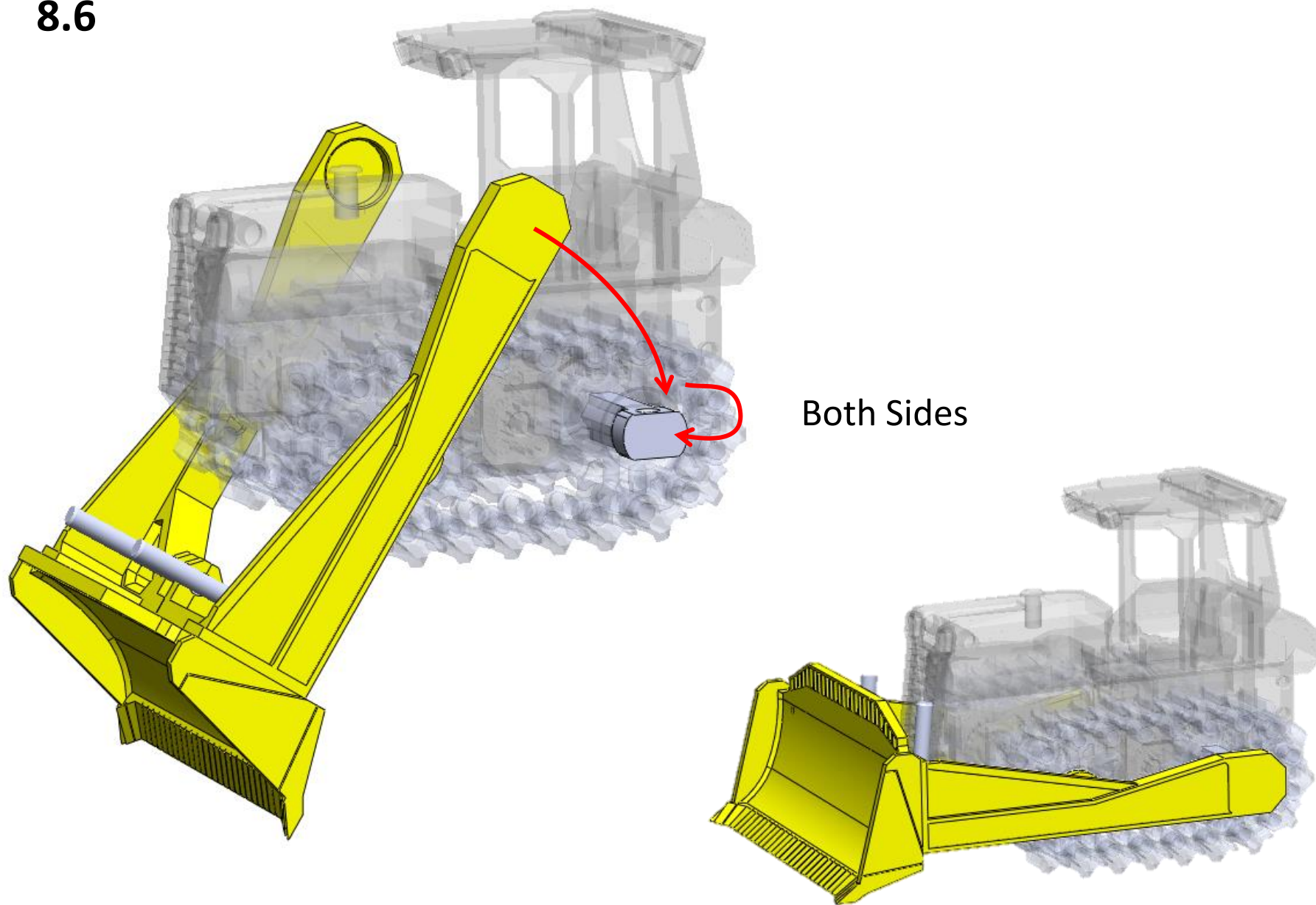


8.5

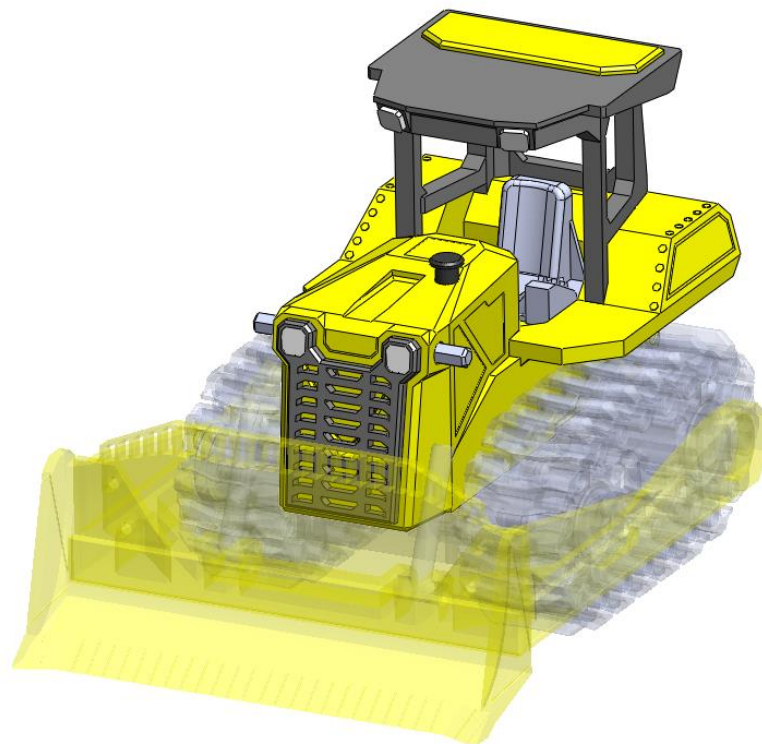
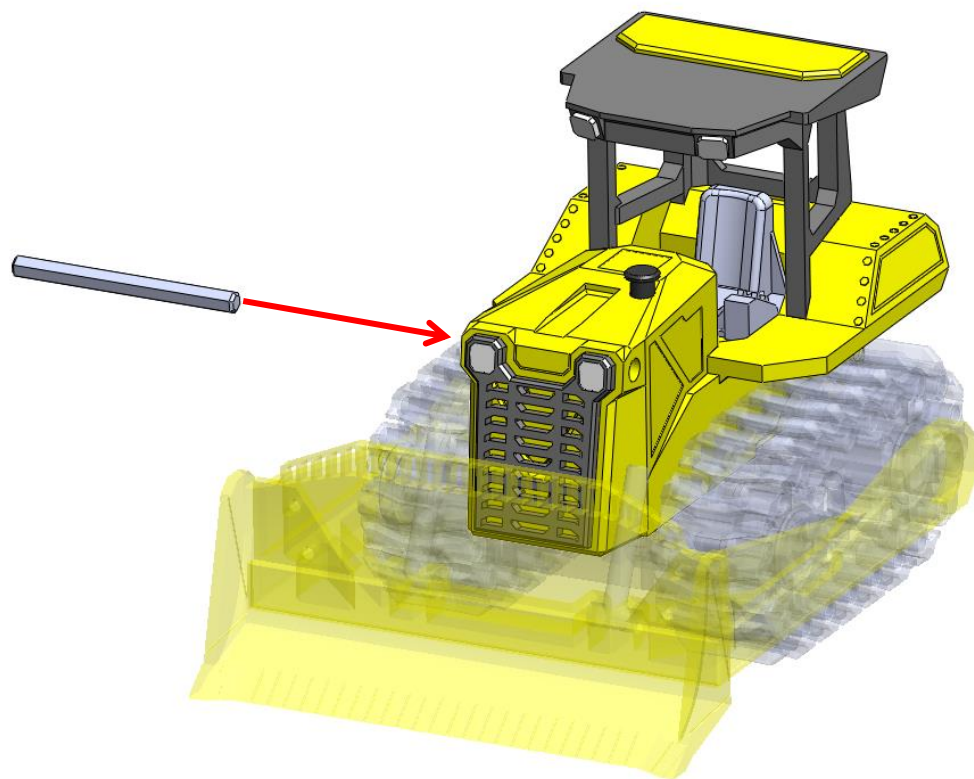




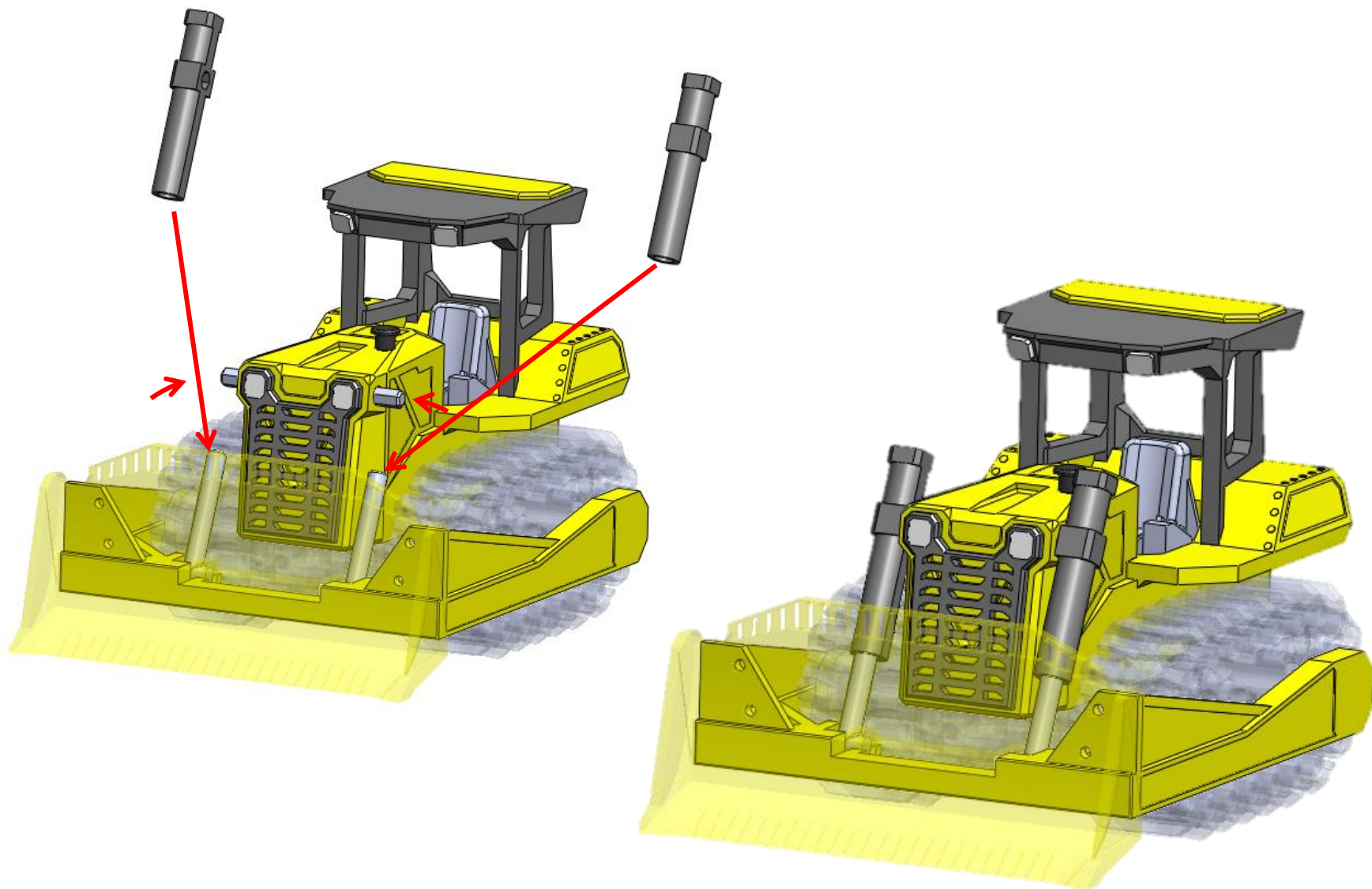
8.6



8.7

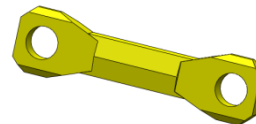
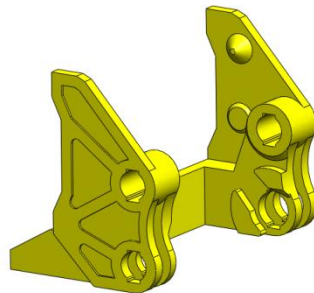
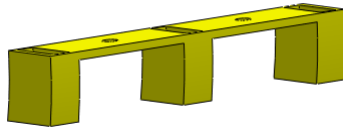
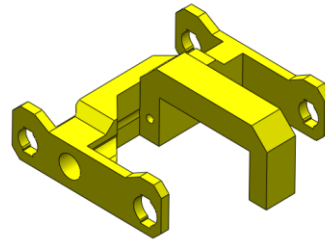
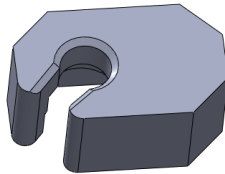
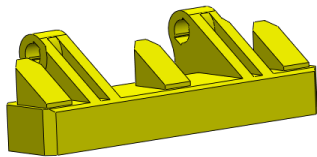


8.8



# Ripper Assembly

## Parts:



2x



3x



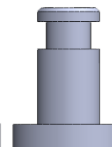
7x



4x

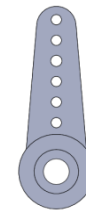


2x



1x

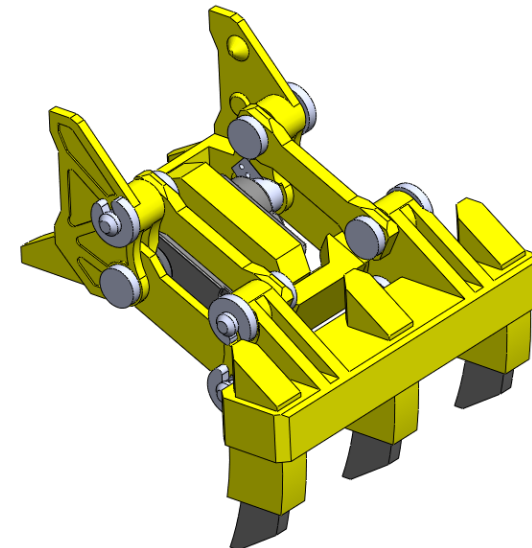
## Hardware:



1x M2.5x6



2x Servo Screws





## 9.1

Plug in power cable



## 9.2

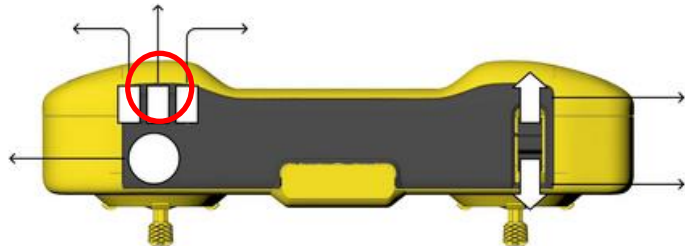
Use switch to power on/off



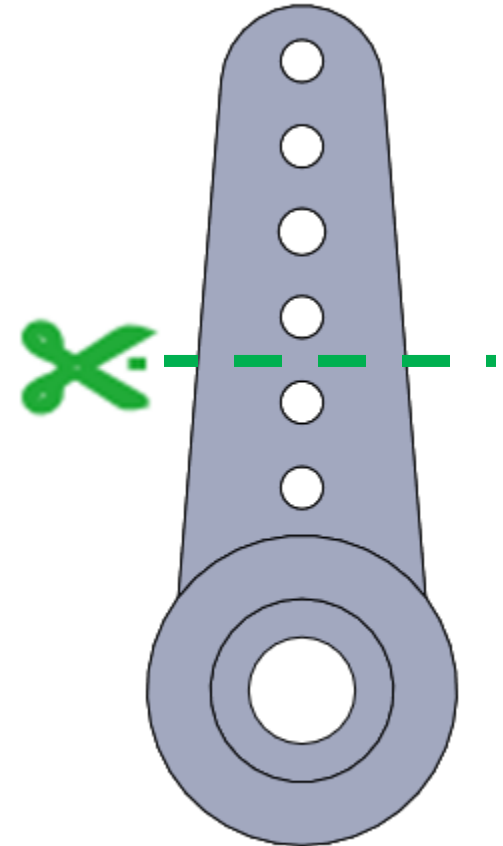
## 9.2

With vehicle and remote powered on, Cycle switch to index Servo.

Let switch Remain in middle Position

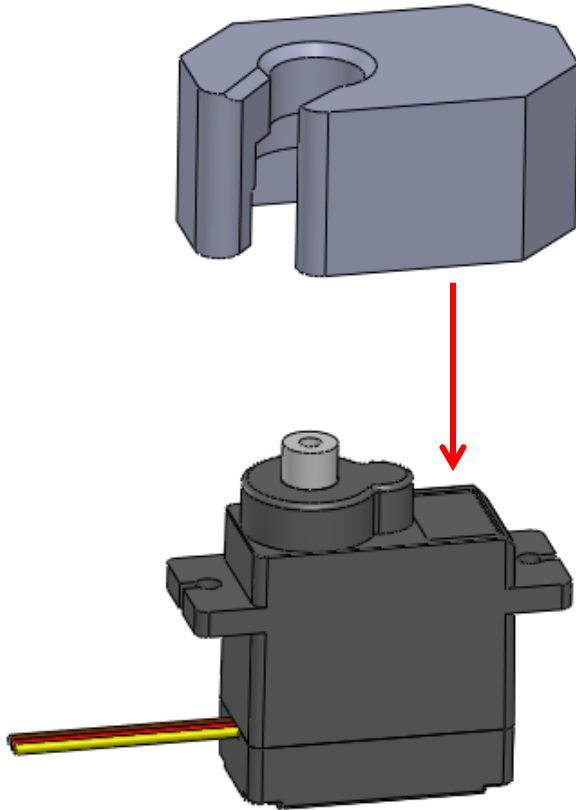


## 9.3

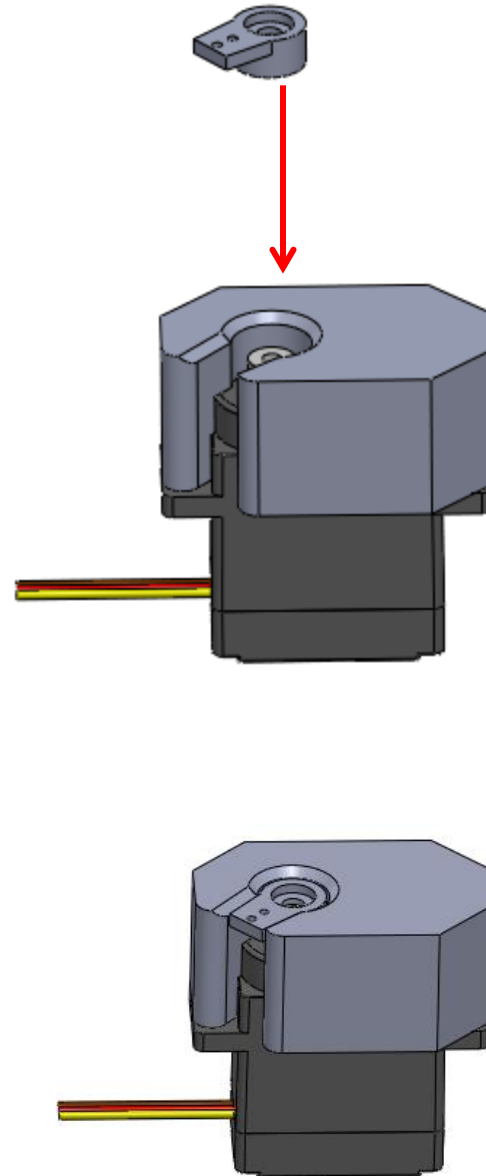


## 9.4

Use tool to align servo arm while switch is in middle position

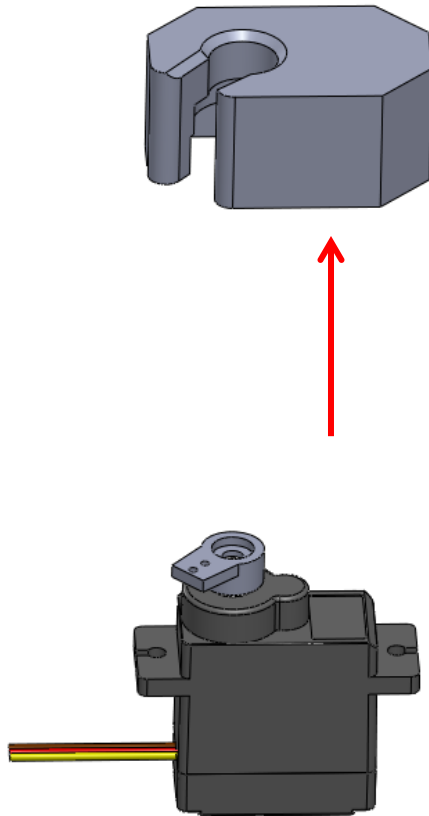


## 9.5



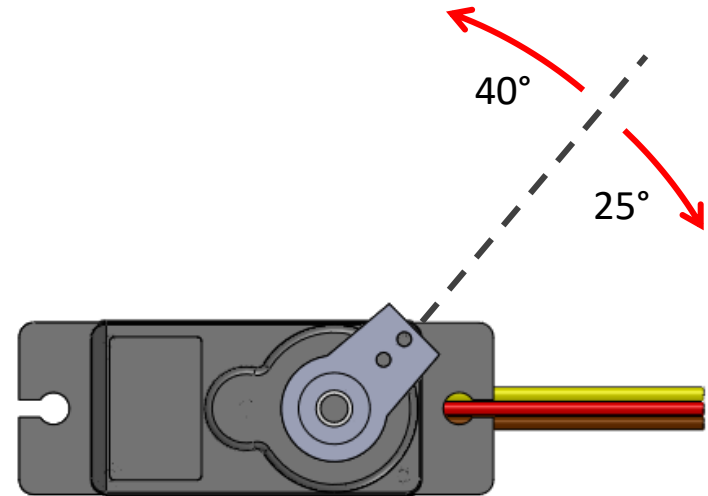


## 9.6

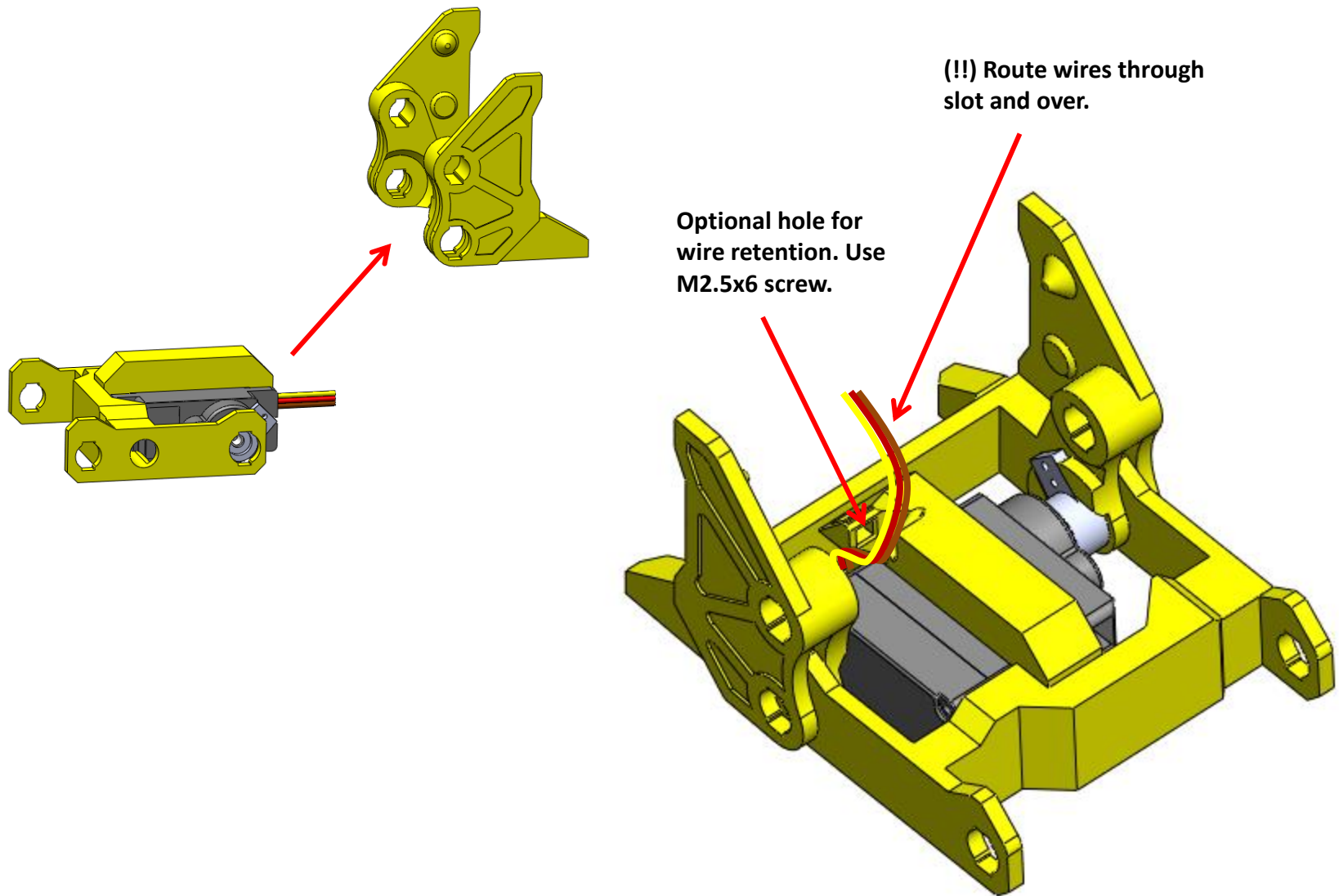


## 9.7

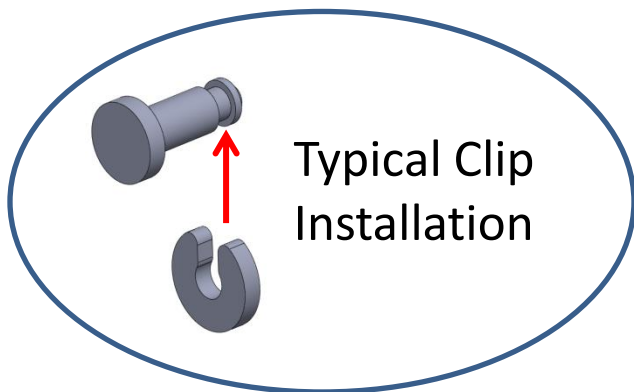
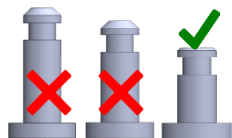
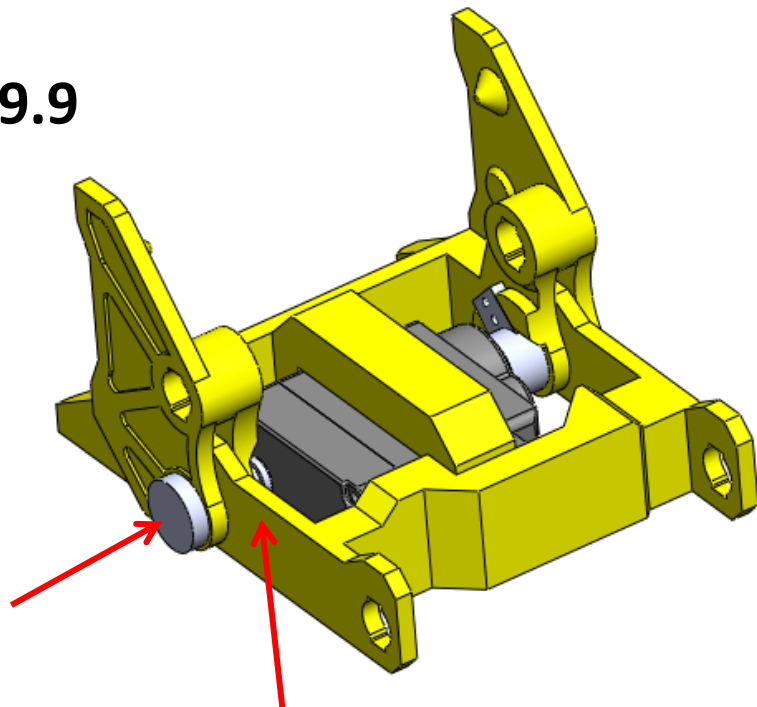
Check motion with controller switch



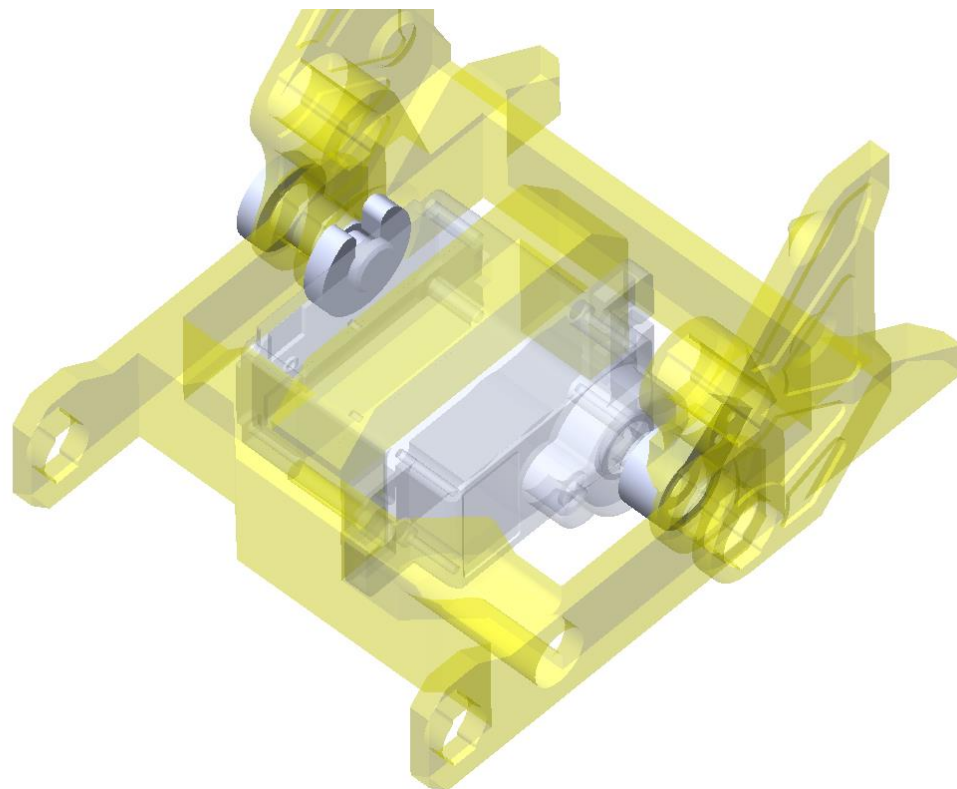
## 9.8



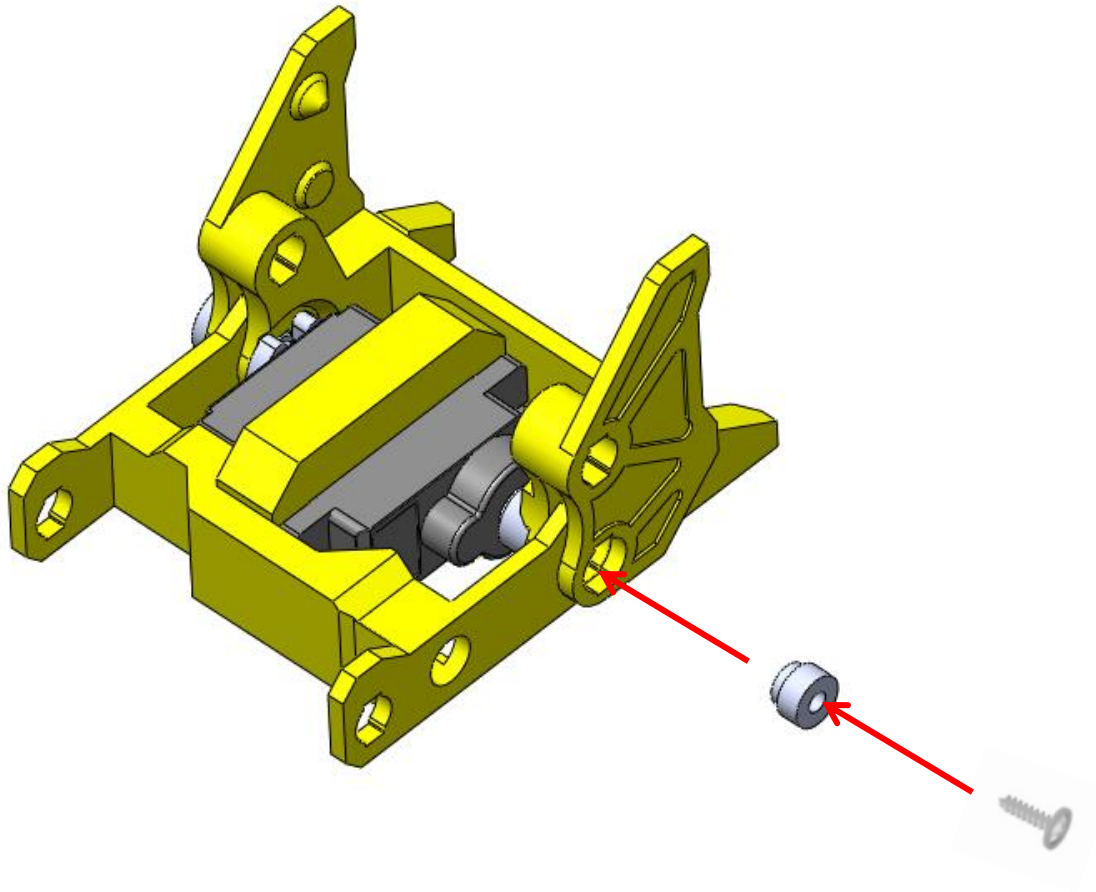
9.9



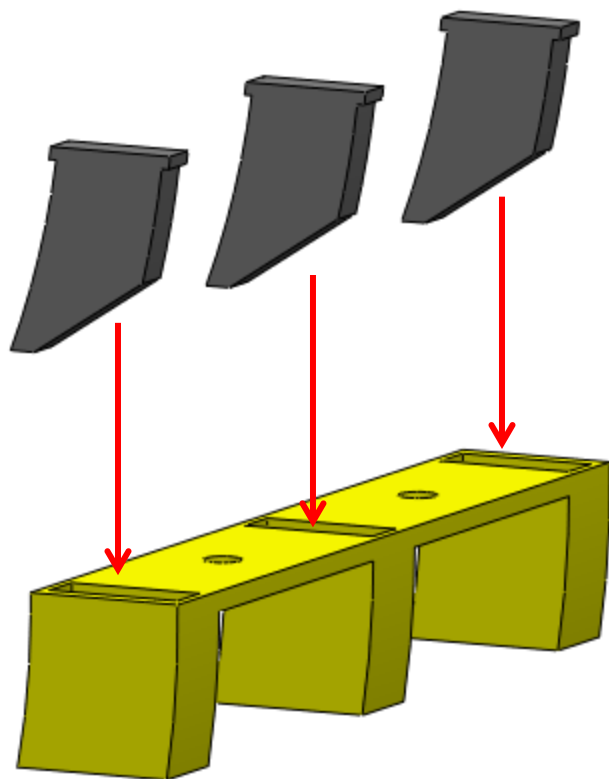
Typical Clip  
Installation



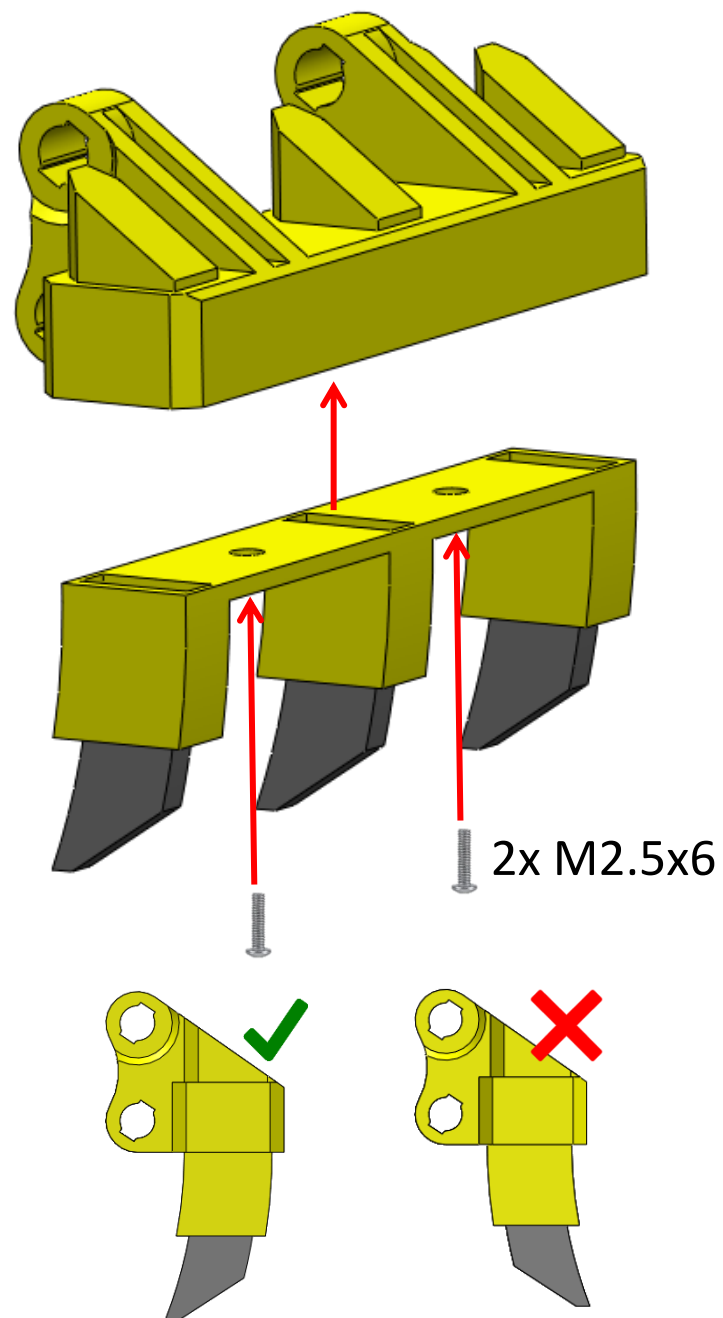
9.10



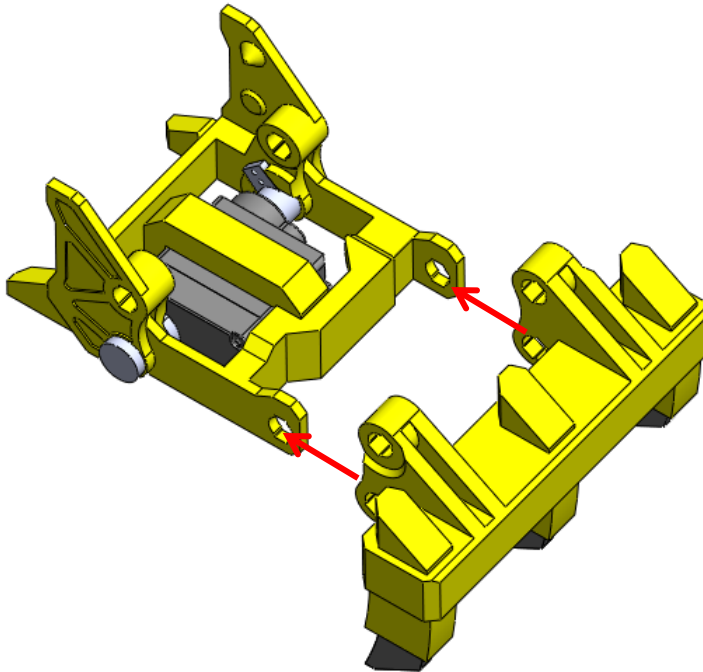
9.11



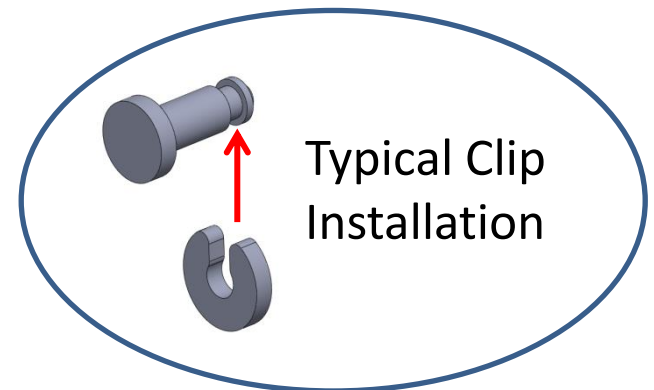
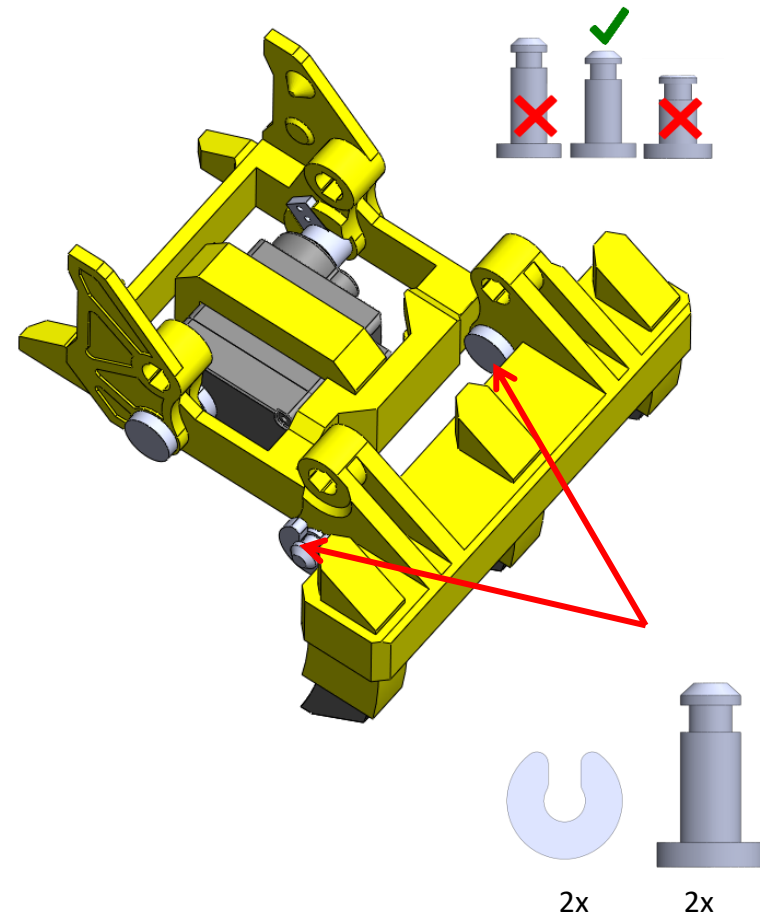
9.12



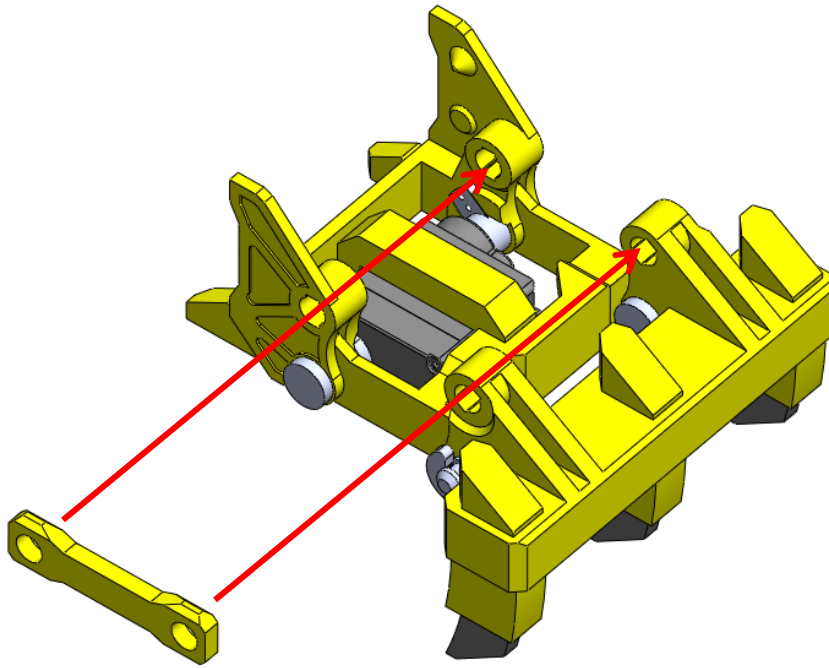
9.13



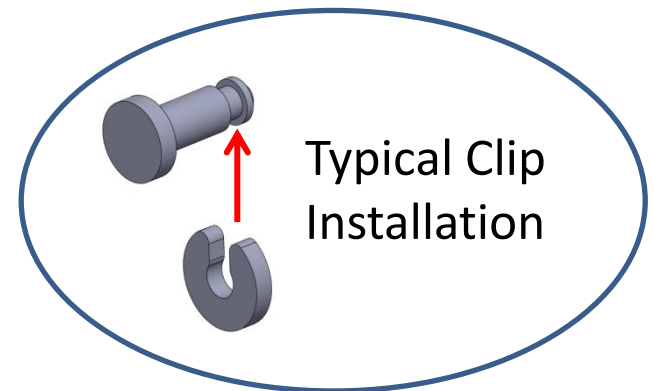
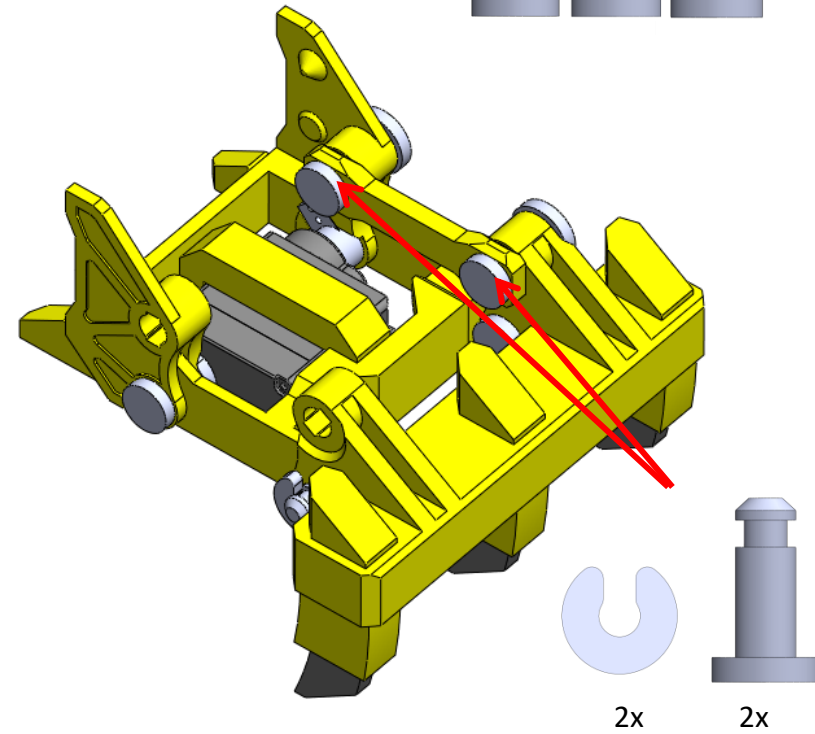
9.14



9.15

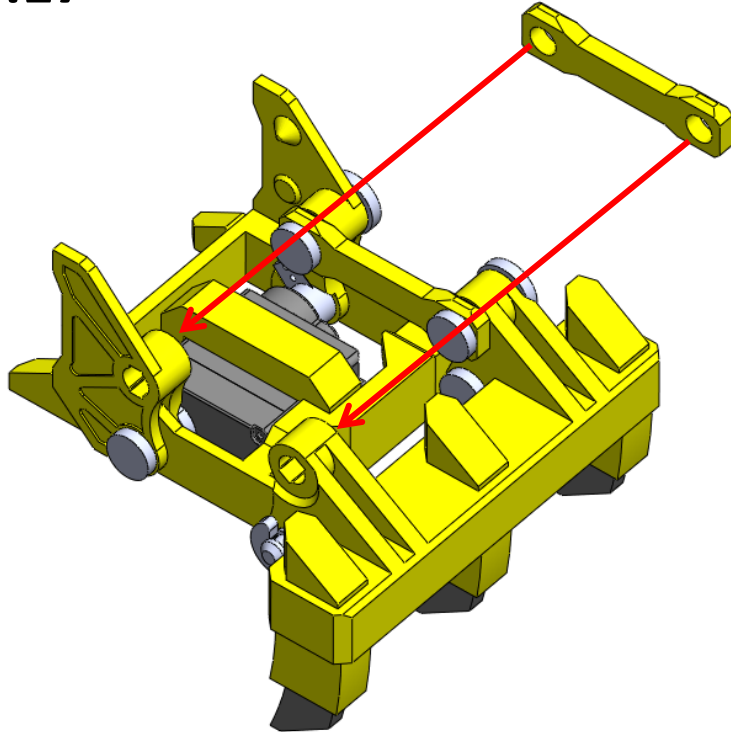


9.16

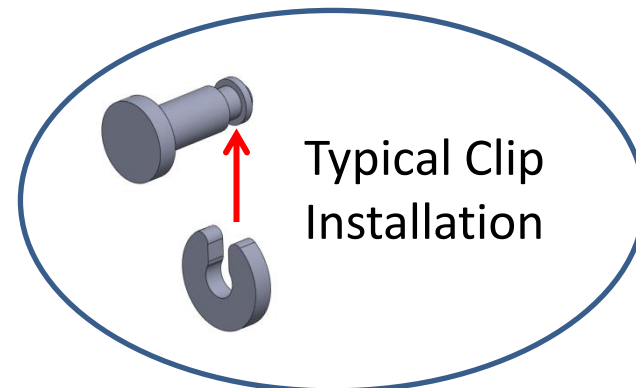
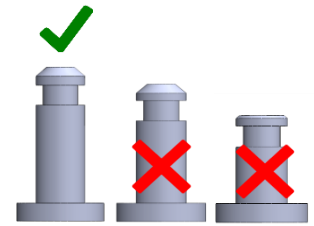
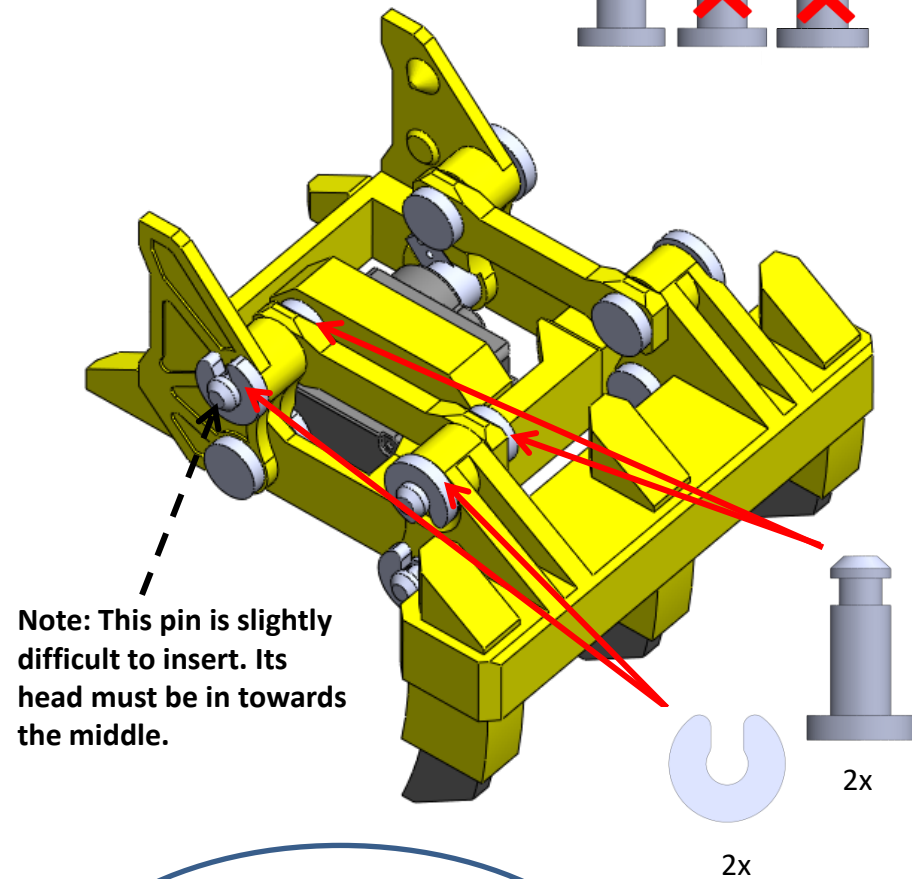




9.17

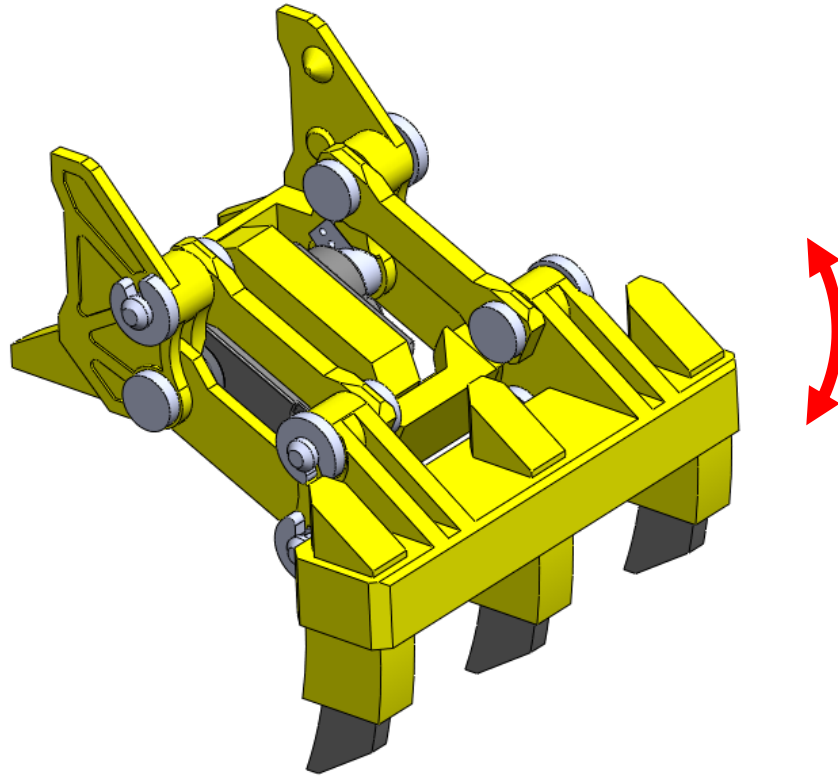


9.18

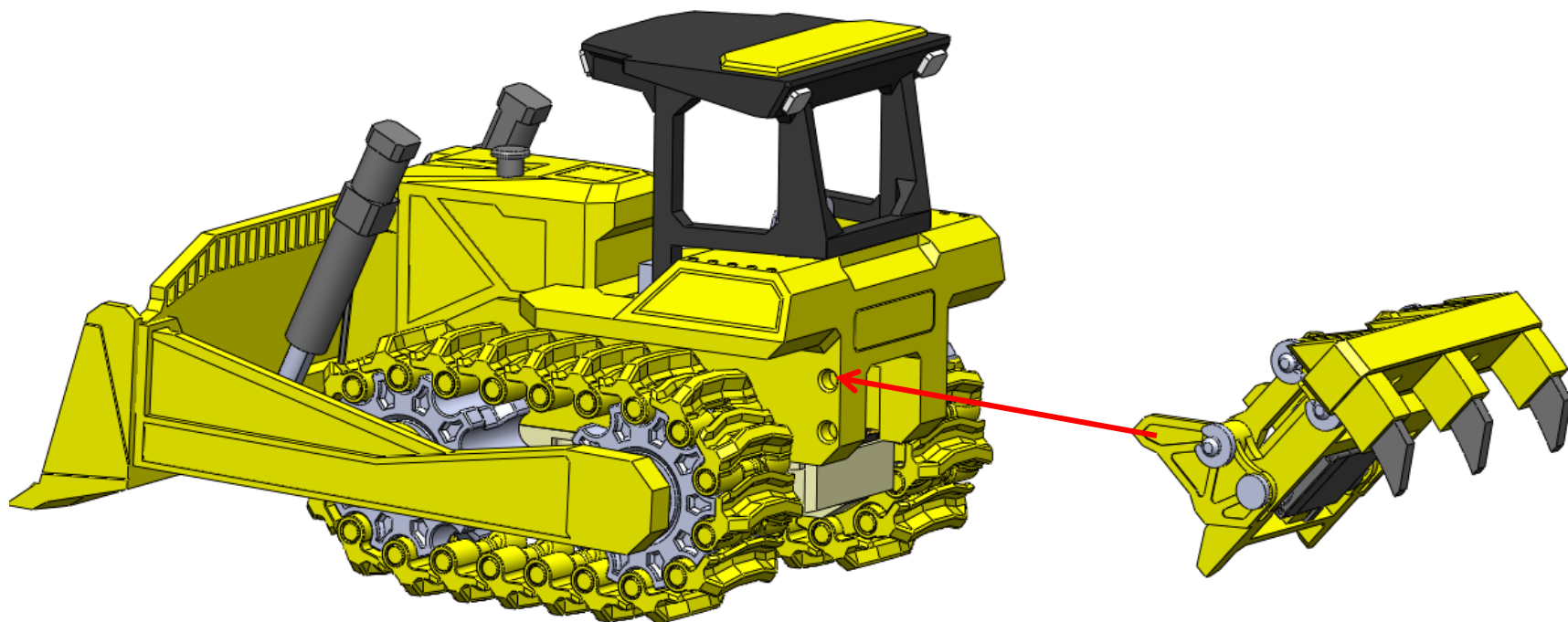


## 9.19

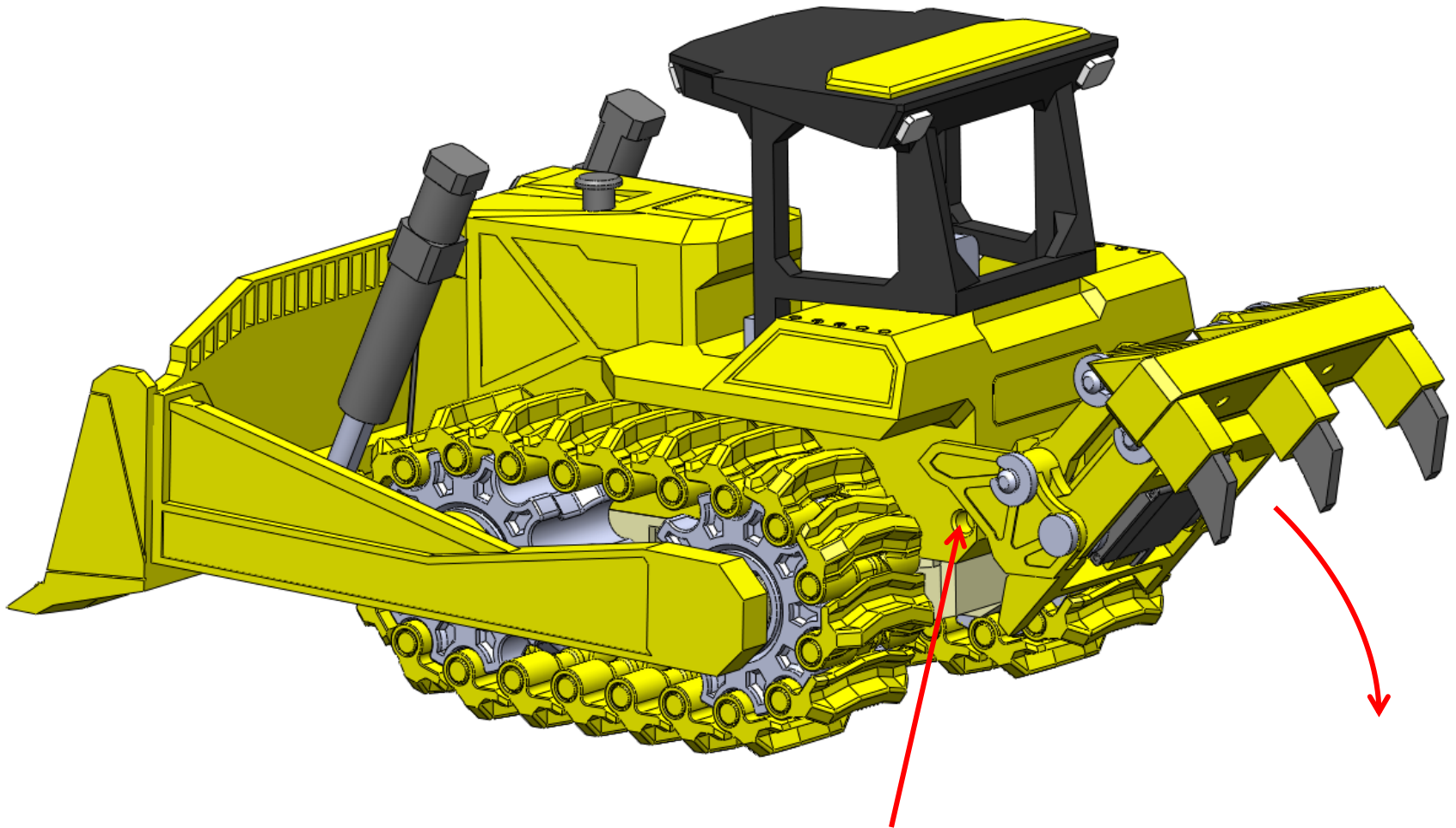
Using controller, check that motion  
of assembly works



9.20

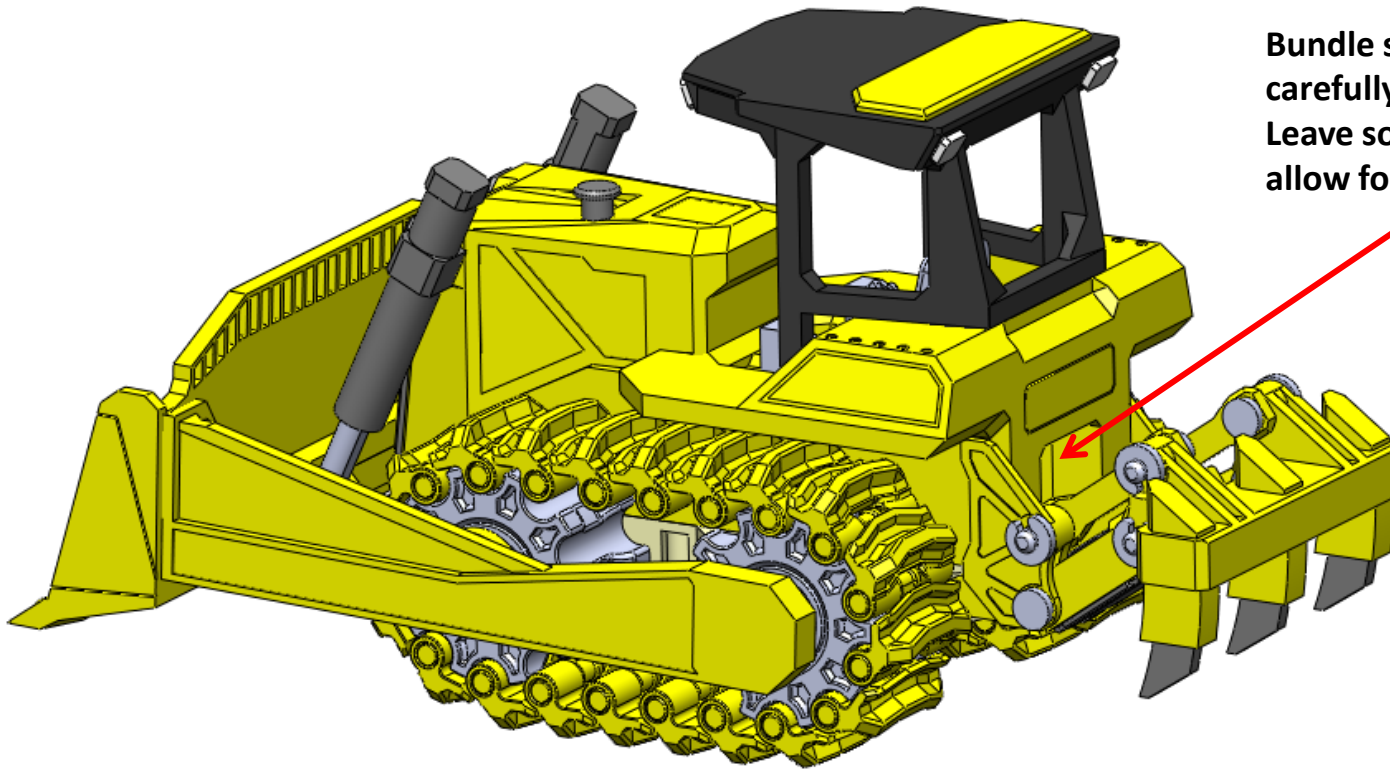


9.21



Rotate down to click  
these pins into place

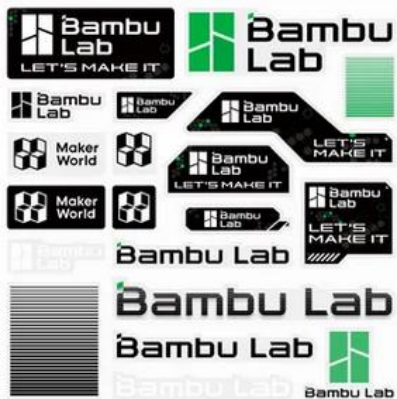
## 9.22



**Bundle servo cables and carefully stuff into hole. Leave some wire slack to allow for motion.**

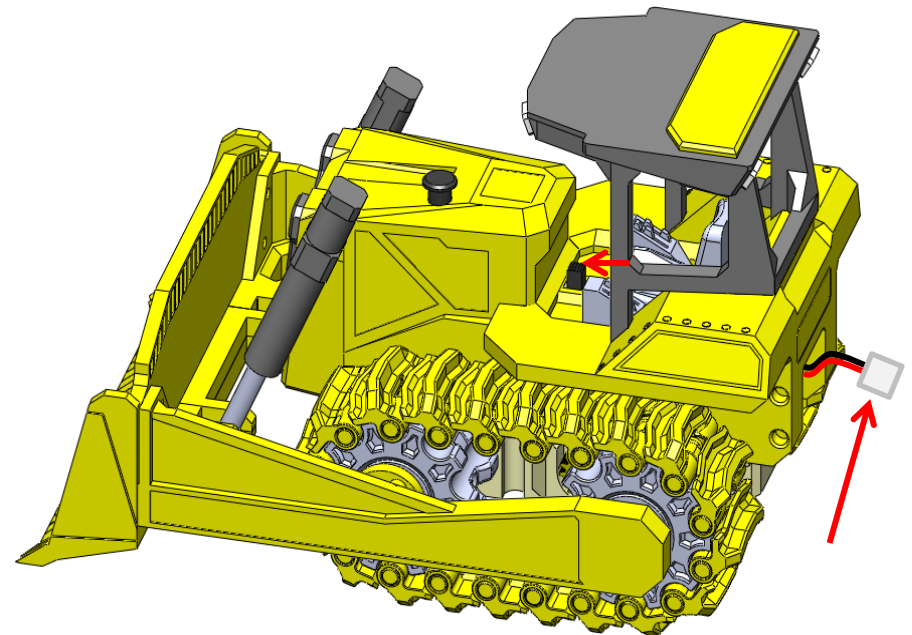
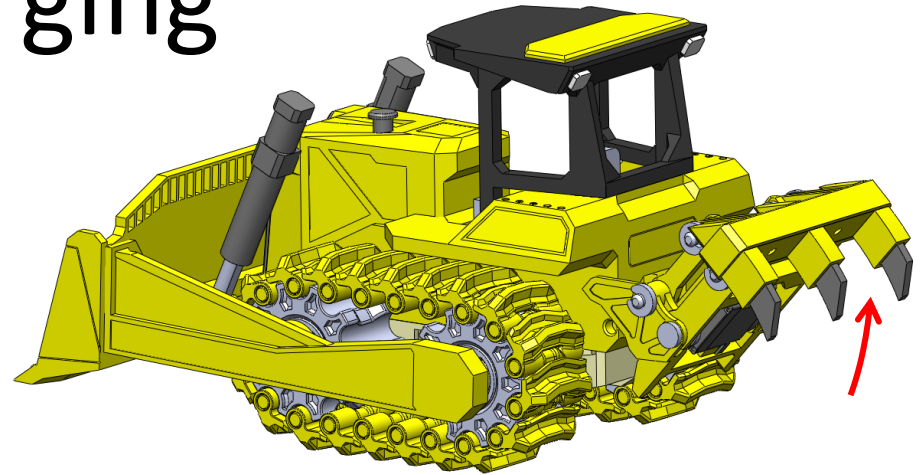
# Stickers

Apply stickers if desired



# Charging

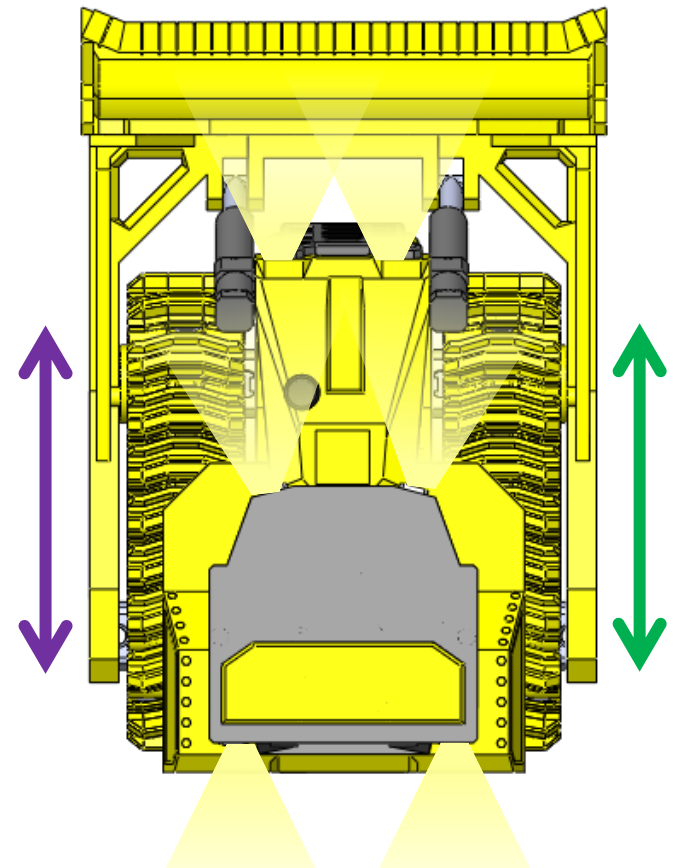
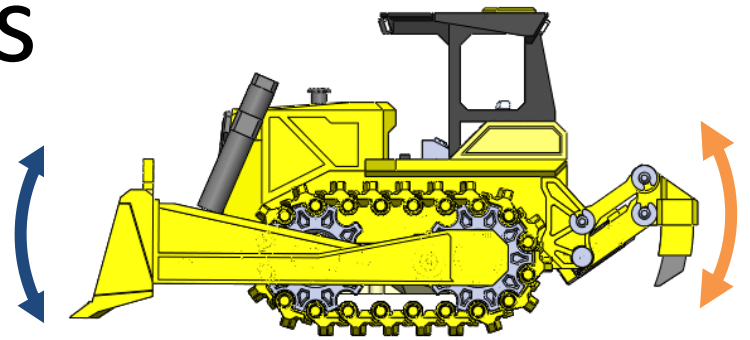
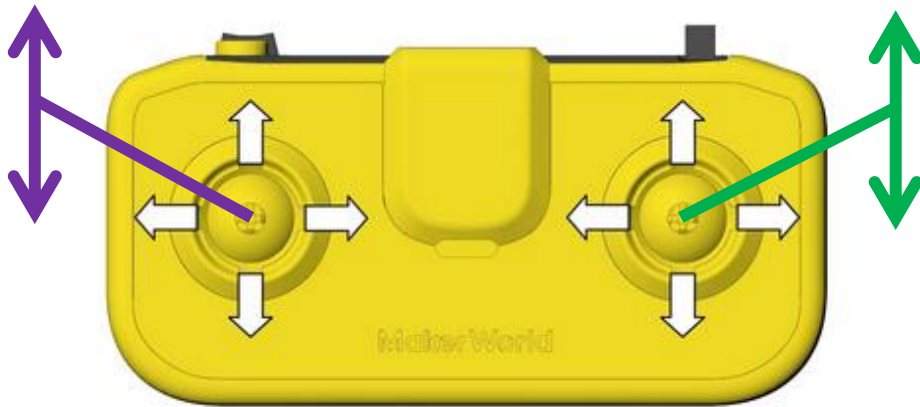
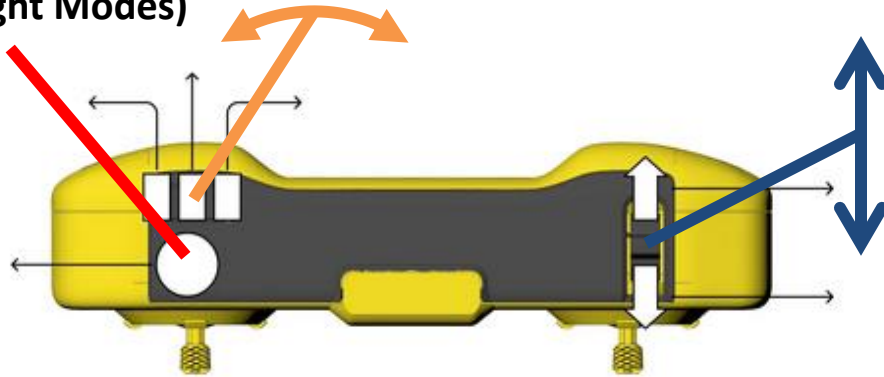
1. Rotate Ripper up (lower pins click out of position)
2. Unplug power cable at back of bulldozer (tweezers can help)
3. Plug the USB charger into the power cable
4. Make sure the power switch is on while charging!





# Controls

(Cycle Light Modes)



# Troubleshooting

If you have issues, please make sure to read the troubleshooting section in the main model page – I will add common problems and solutions there as they come up.

If you need further help, have questions, suggestions, or other issues, please feel free to reach out. Leave a comment or send me a message!

