



- Length Without Main Blades: 1483mm
- Overall Height: 351mm
- Width: 217mm
- Main Gear: 106T Mod 1
- Pinion Gear: 11T (10-13T Optional)
- Motor Shaft Diameter: 6mm (Length 20-55mm)
- Main Gear Ratio: 9.636 (10.6 - 8.38 Optional)
- Front Tail Pulley: 100T
- Rear Tail Pulley: 21T (20T Optional)
- Tail Ratio: 4.767 (5.0 Optional)
- Frame Weight: 2060g
- Main Shaft Diameter: 15mm
- Feathering Shaft Diameter: 10mm
- Tail Boom Diameter: 32mm
- Tail Belt Width: 8mm
- Main Gear Thickness: 15mm(18mm Optional)
- Battery Compartment Size: 380mm*68mm*70mm

Manual Release 1.0
Always Check <http://xlpower-rc.com> for the latest version of this manual

Always Follow These Rules For Safety



If you do not observe these instructions, you may be held liable for injury or damage.

Operate the helicopter in open areas with no people nearby. Do NOT operate the helicopter in these situations or areas:

- In places where children gather or people pass through
- In residential areas and parks
- Indoors and in limited space
- Extremely windy weather or when there is rain, snow, fog or other precipitation

When operating and tuning/adjusting your model, keep the following in mind:

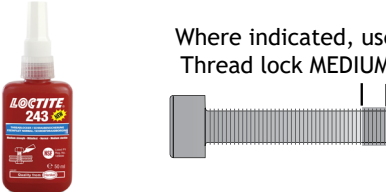
- ALWAYS check radio control system for proper operation before operating the model.
- ALWAYS check radio control system power levels before operating the model. Flying with low transmitter or receiver battery may cause loss of control.
- ALWAYS pay attention to your surroundings, and look out for others who are also operating a radio control model nearby.
- ALWAYS check that all screws are tight and not coming loose before flying the model. A single loose screw on the model may cause a major accident.
- ALWAYS perform necessary maintenance and preflight checks to keep the helicopter in a good and safe flying condition.

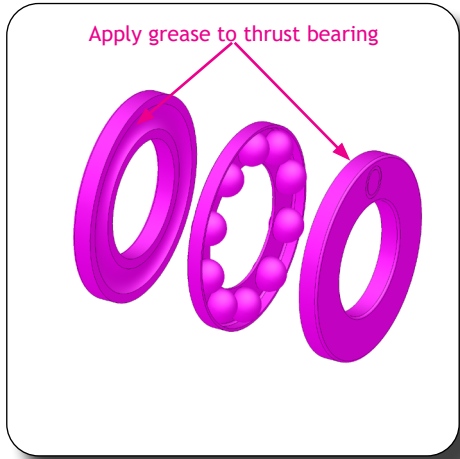
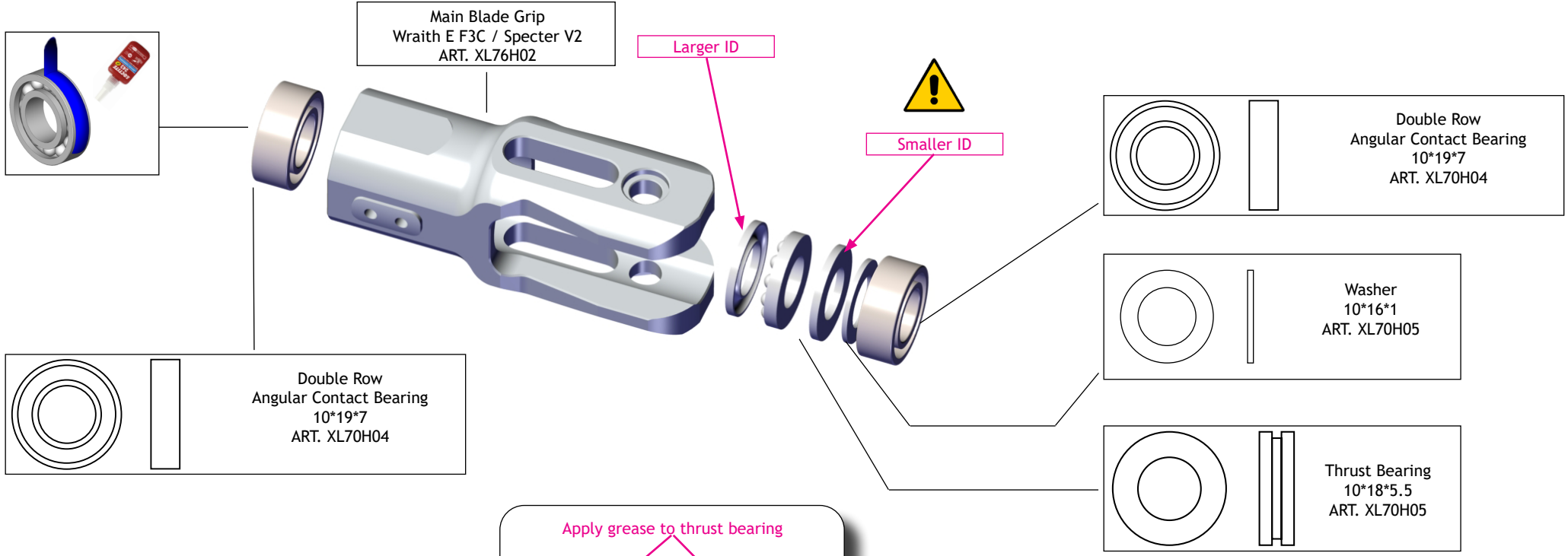
- NEVER use the same control frequency as someone else. Doing so may cause interference or loss of control of the model.
- NEVER continue flying if the model is displaying irregular behavior or noises. Bring the model to a halt immediately and disconnect the batteries.
- NEVER fly the model with known broken or defective parts. Always replace damaged parts before attempting to fly again.
- NEVER approach the model while the rotors are still spinning. Doing so can result in serious personal injury.
- NEVER touch the motor immediately after flying. It may be hot enough to cause moderate burns.

- Operate only outdoors and out of bystanders' reach, as the main rotor operates at high rpm and is very dangerous.
- While adjusting and testing, pilots and observers should stand at least 10 meters from the model.
- Novice pilots should be assisted by an experienced pilot and never fly alone!

Equipment Required for Assembly



<p>Swashplate Servos: Standard Size (Qty. 3)</p>	<p>ESC: 130HV-250HV Typical</p>	<p>Hex Screwdriver Sizes: 1.5mm 2mm 2.5mm * 2 3mm 4mm * 2</p>
<p>Tail Servo Standard Size (Qty. 1)</p>	<p>Main Blades: Carbon Fiber 690mm - 720mm</p>	<p>Where indicated, use Thread lock MEDIUM</p> 
<p>Trasmitter Receiver/Satellites Flybarless Unit</p>	<p>Tail blades: Carbon Fiber 105mm to 116mm</p>	<p>Thrust Bearing Grease</p>
<p>Battery Pack (Typical): LiPo 6s 4000-5500mAh * 2 or LiPo 7s 4000-5500mAh * 2</p>	<p>Motor: 4525-4530 500kv-550kv Typical</p>	<p>Pitch Gauge</p>



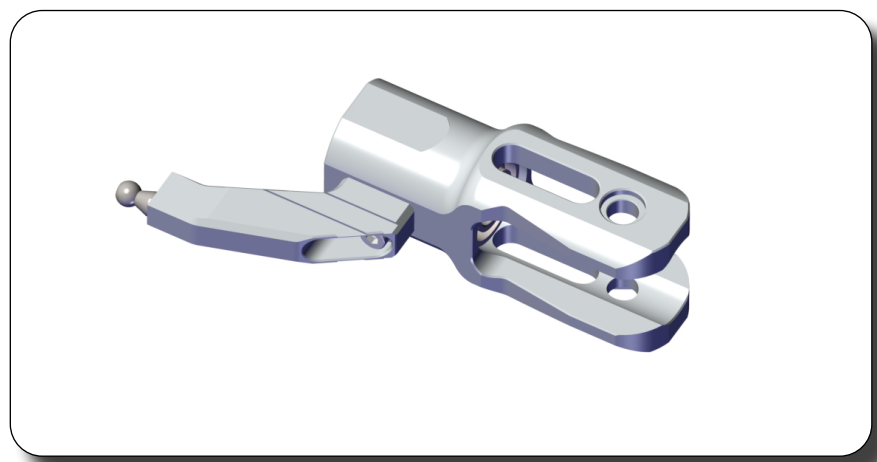
Main Blade Grip Arm
ART. XL70H08

Inner hole for agile

Outer hole for stable

Ball 5mm M3*3 ART. XL70A01		

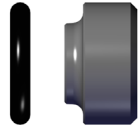
Hex screw M3*10 ART. MSH71114		



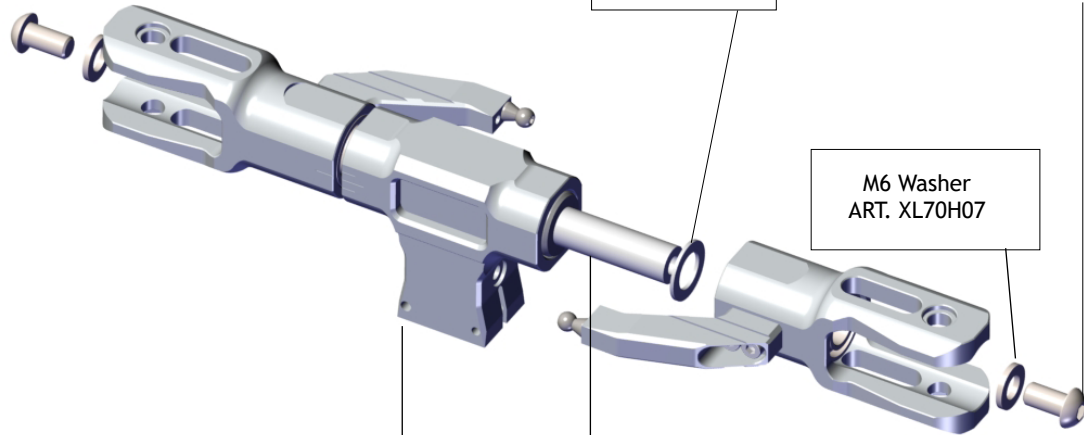
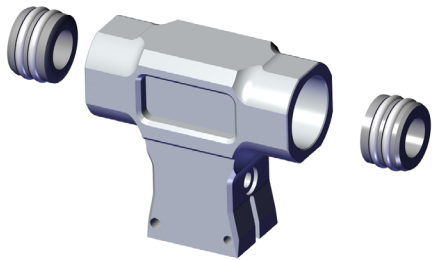
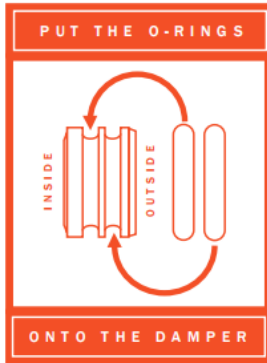
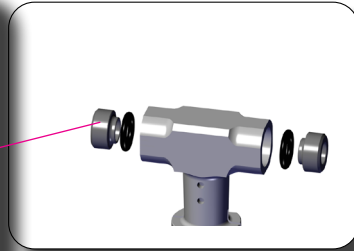
Head Dampeners



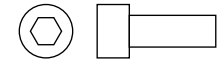
ART. XL70H02-3
Sport / 3D
(POM with two 80° O-Ring)



ART. XL70H02-4
For both low HS and Hardcore 3D
(POM with 70° O-Ring)
Optional



Washer
10°16*1
ART. XL70H05

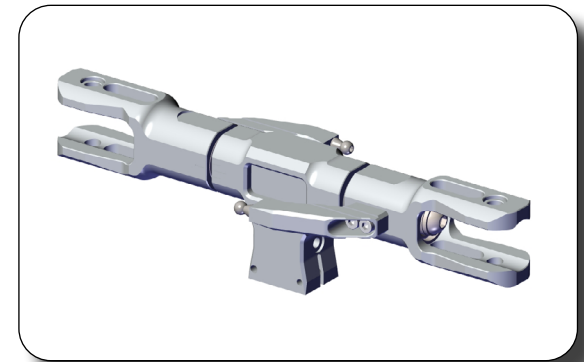


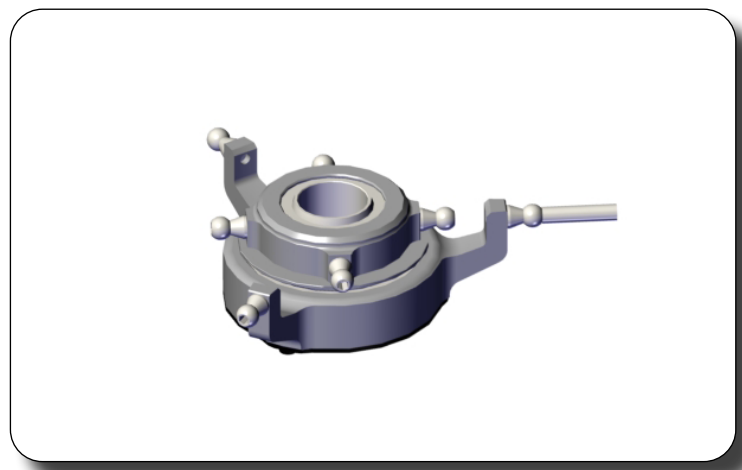
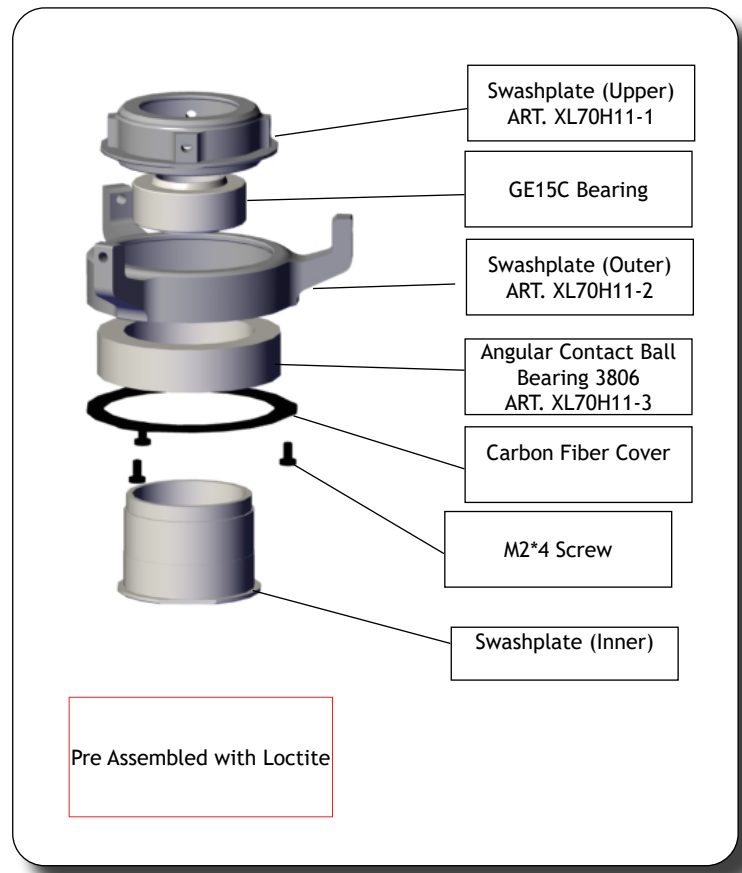
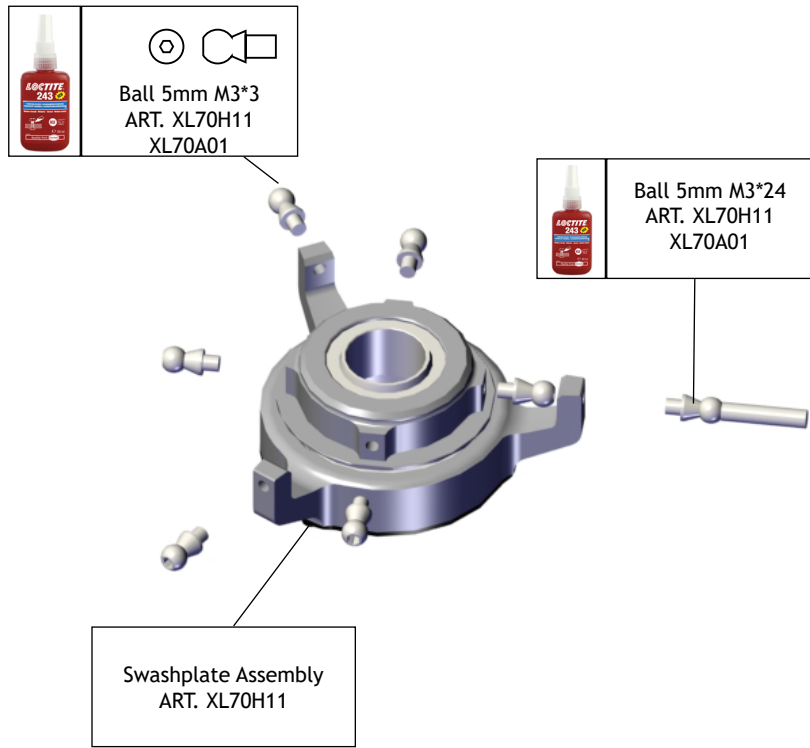
Screw M6*12
ART. XL70H07

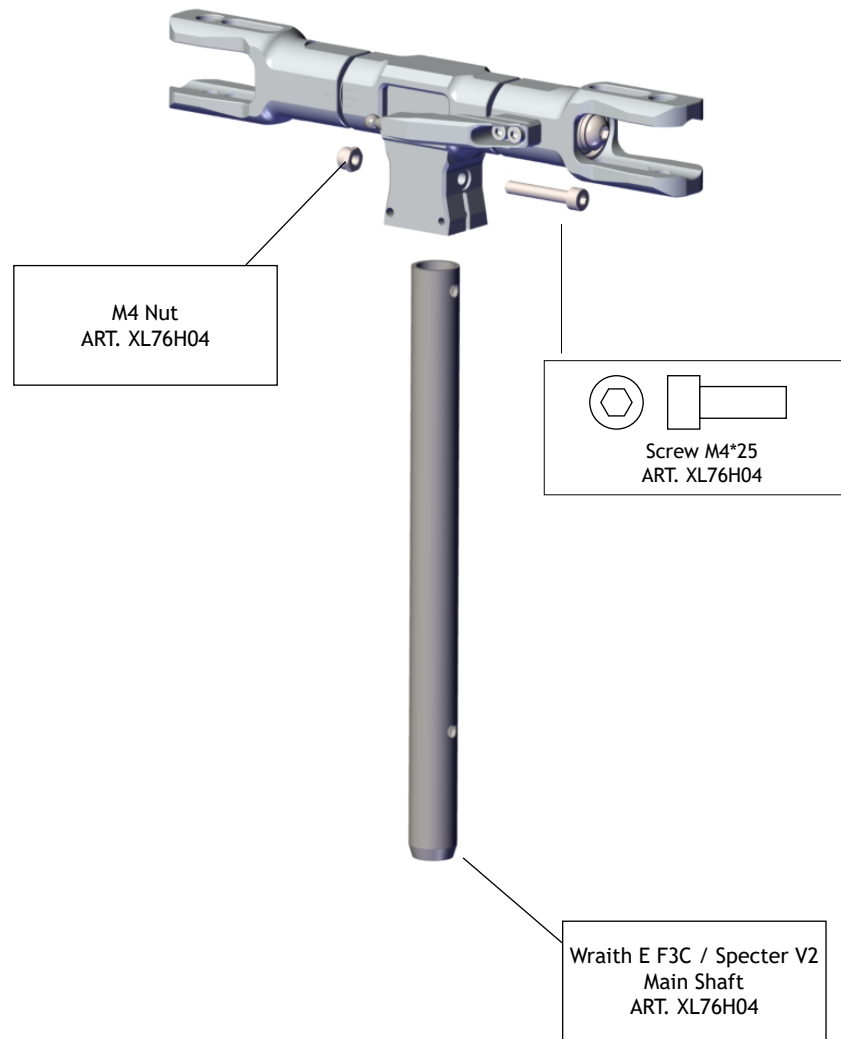
M6 Washer
ART. XL70H07

Spindle
ART. XL70H07

Main Rotor Hub V2
ART. XL70H01-1







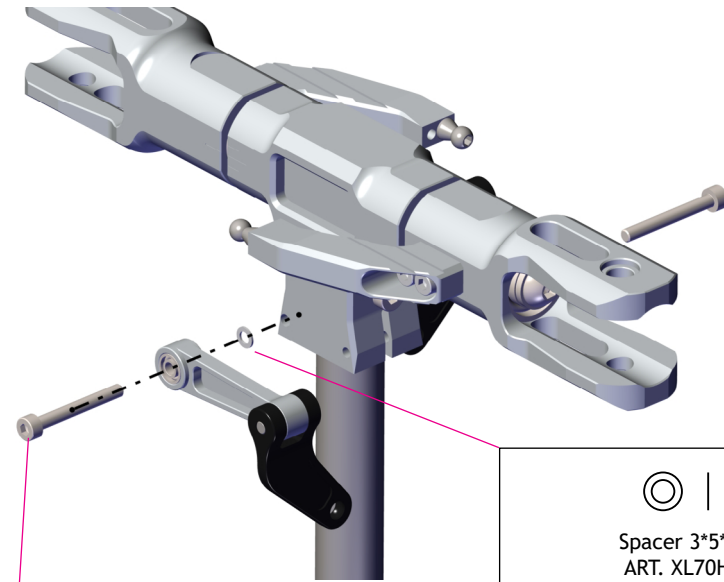
Spacer 3*5*0.5
ART. XL70H09

Ball Bearing
3*7*3
ART. XL52A12
ART. XL70H09

Pin 3*14
ART. XL70H09

Control arm
ART. XL70H09

Radius Arm
ART. XL70H09
ART. XL70H10



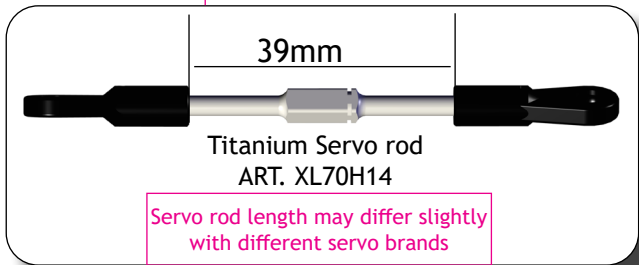
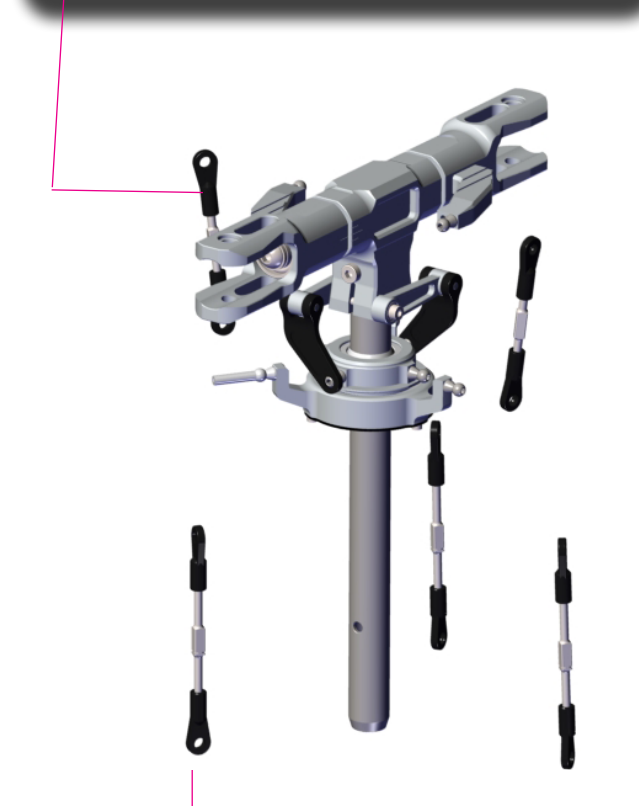
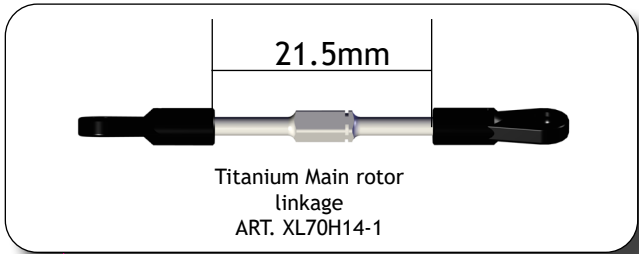
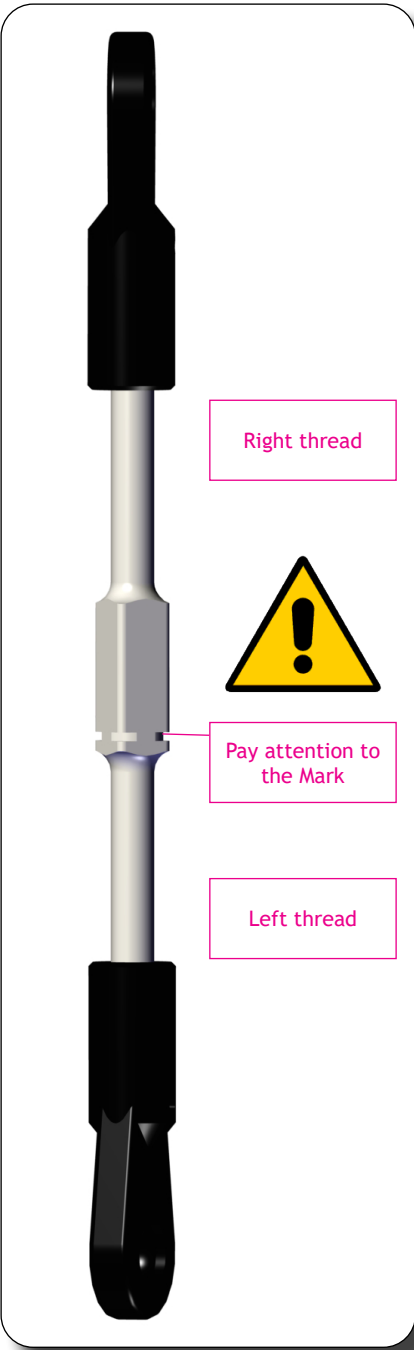
Spacer 3*5*0.5
ART. XL70H09

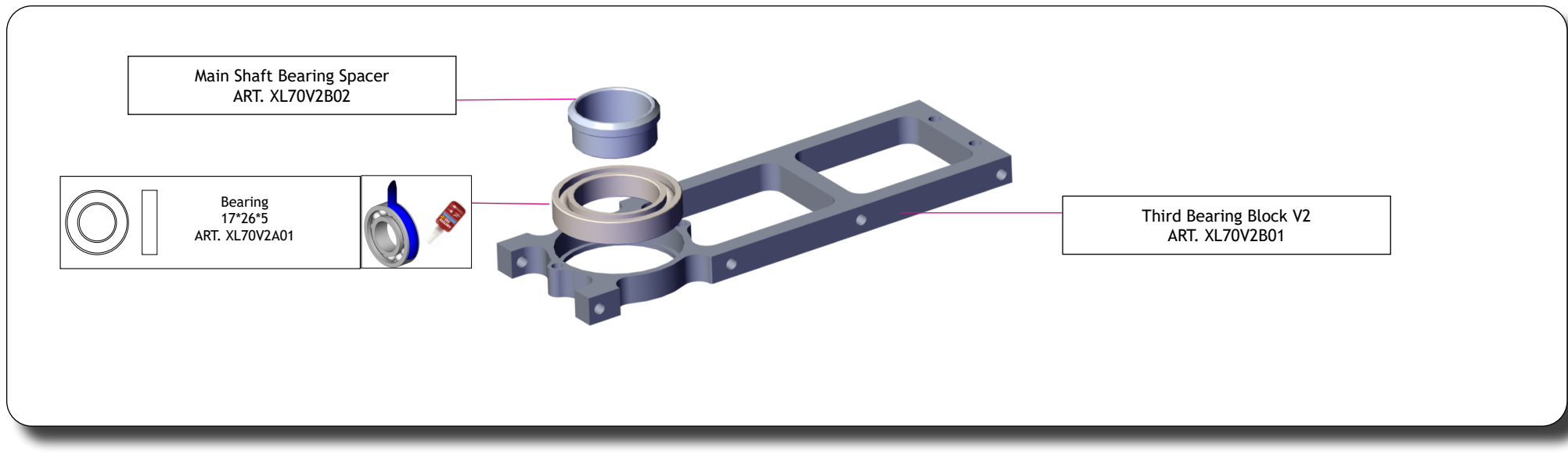
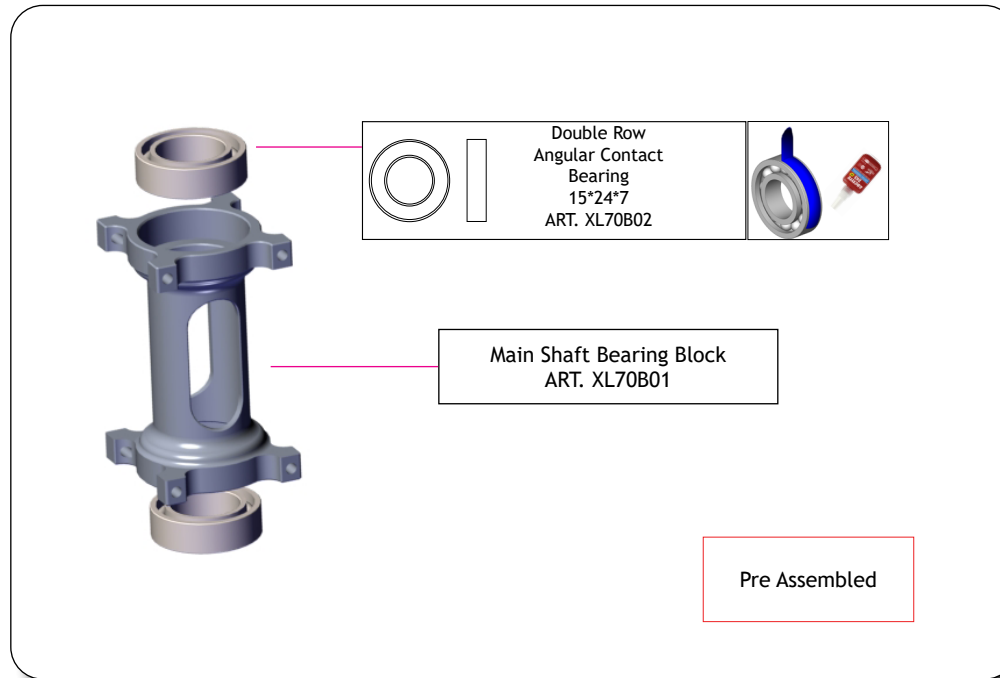
Screw M3*25
ART. XL70H09

2X

Pre Assembled





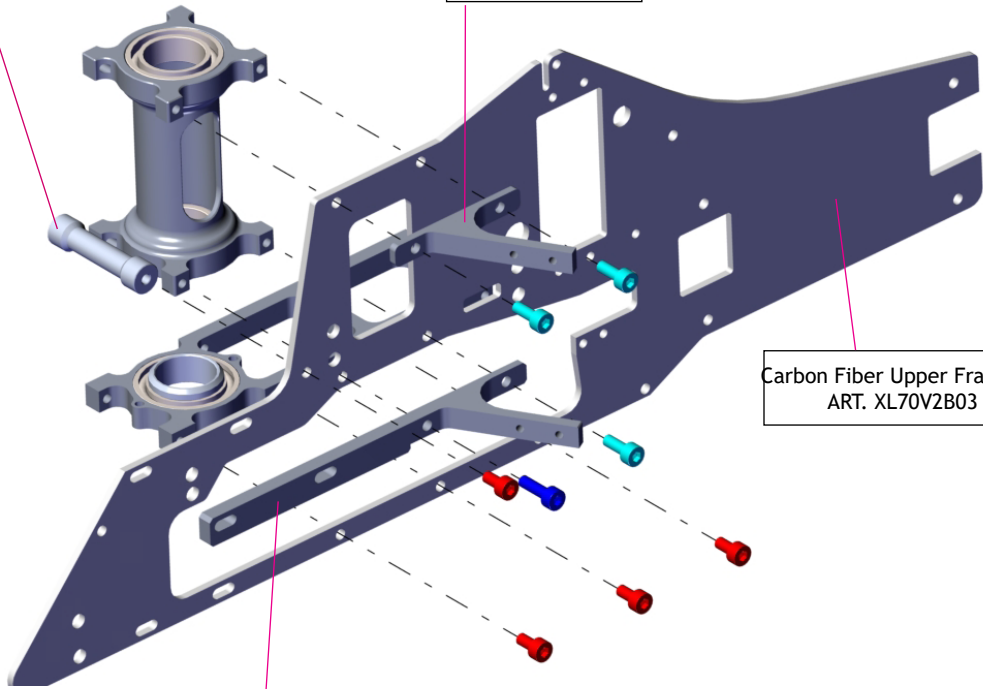


Aluminum Frame Spacer
ART. XL70B40

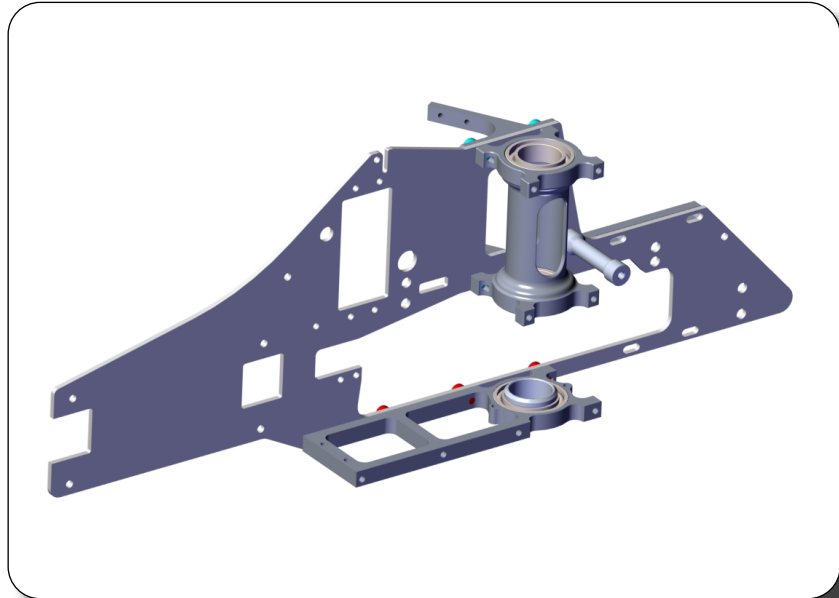
Upper Servo Mount
ART. XL70B03

Carbon Fiber Upper Frame V2
ART. XL70V2B03

Lower Servo Mount (L)
ART. XL70B04-1



		Hex screw M3*6 (Red in picture) ART. MSH71108
		Hex screw M3*8 (Tiffany Blue in picture) ART. MSH71109
		Hex screw M3*10 (Blue in picture) ART. MSH71114



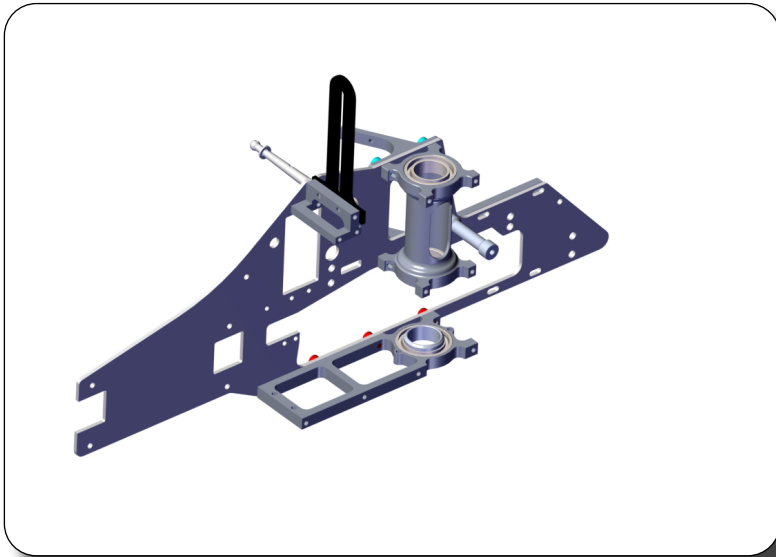
Anti-Rotation Bracket
ART. XL70B13-1

Anti-Rotation Bracket Mount
ART. XL70B13-1

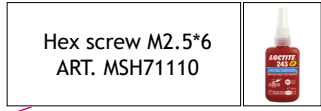
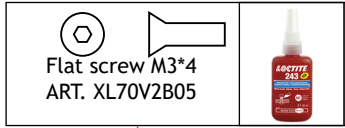
Hex screw M3*6
ART. MSH71108

Canopy Mount (Rear)
ART. XL70V2B04

Set screw M3*12
ART. XL70V2B04

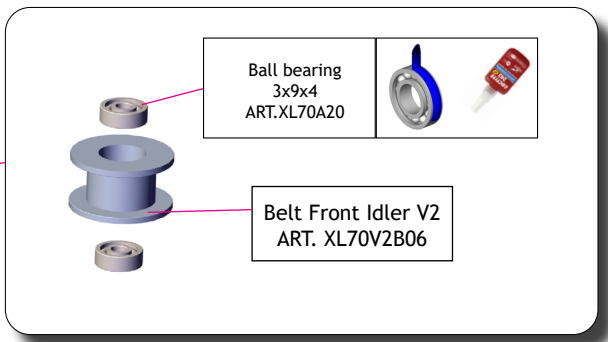


Do Not Install This Silver Screw Yet



Carbon Fiber Plate
ART. XL70V2B07

Front Belt Idler Mount (Upper)
ART. XL70V2B06

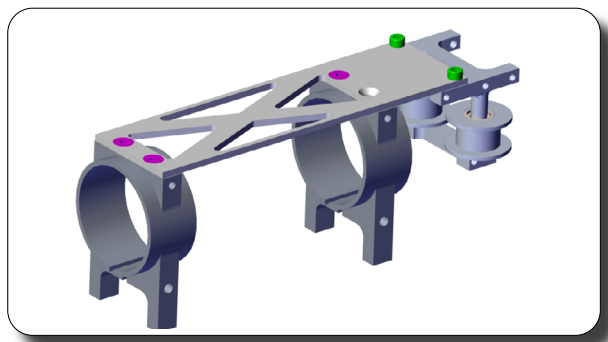


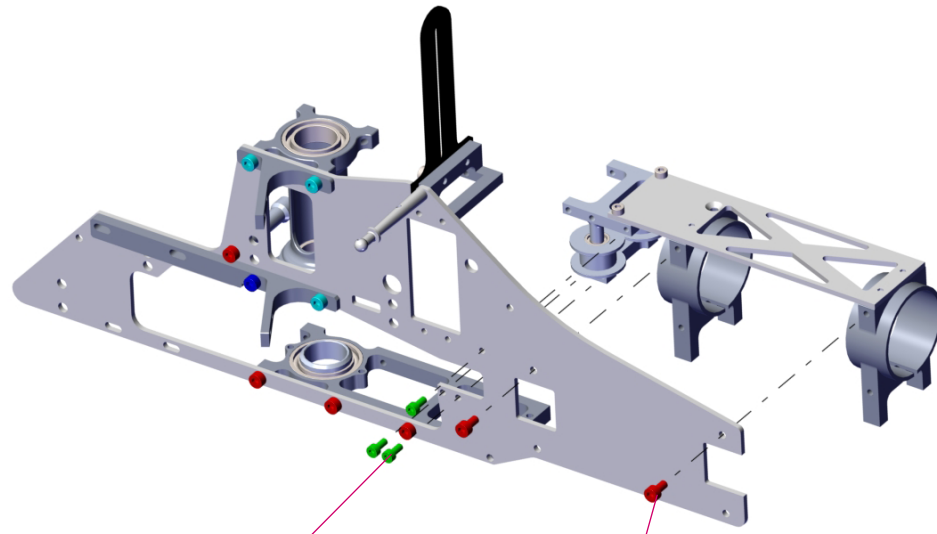
3*17 Pin
ART. XL70V2B06

Tail Boom Clamp V2
ART. XL70V2B05

Front Belt Idler Mount (Lower)
ART. XL70V2B06



Unthreaded Hole Faces Right

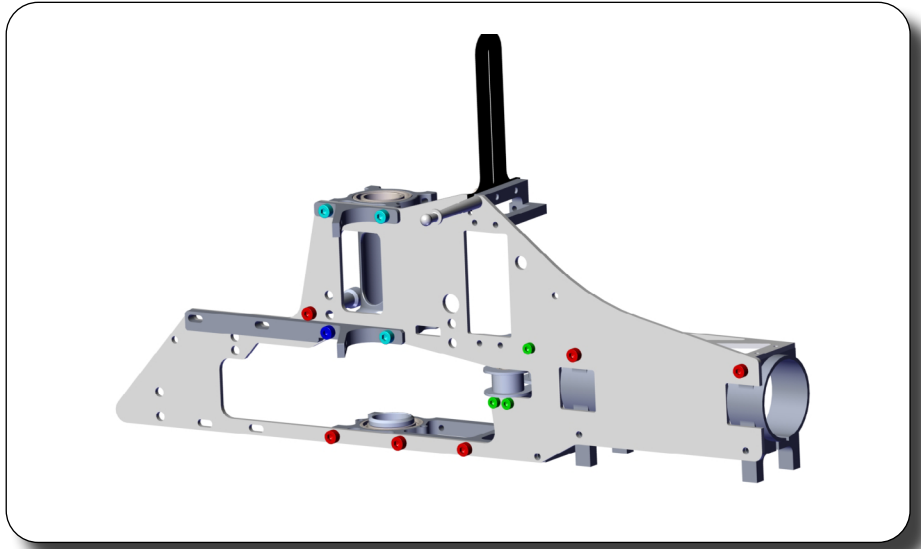
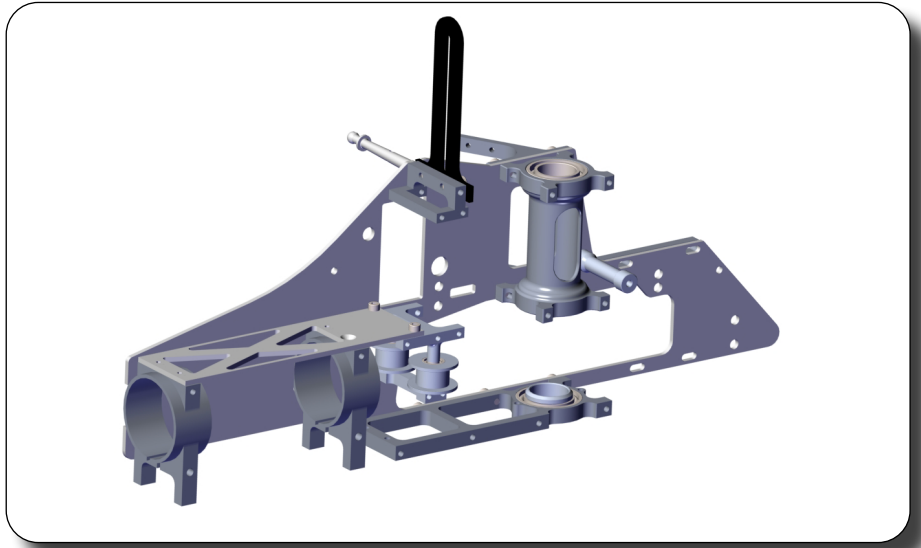


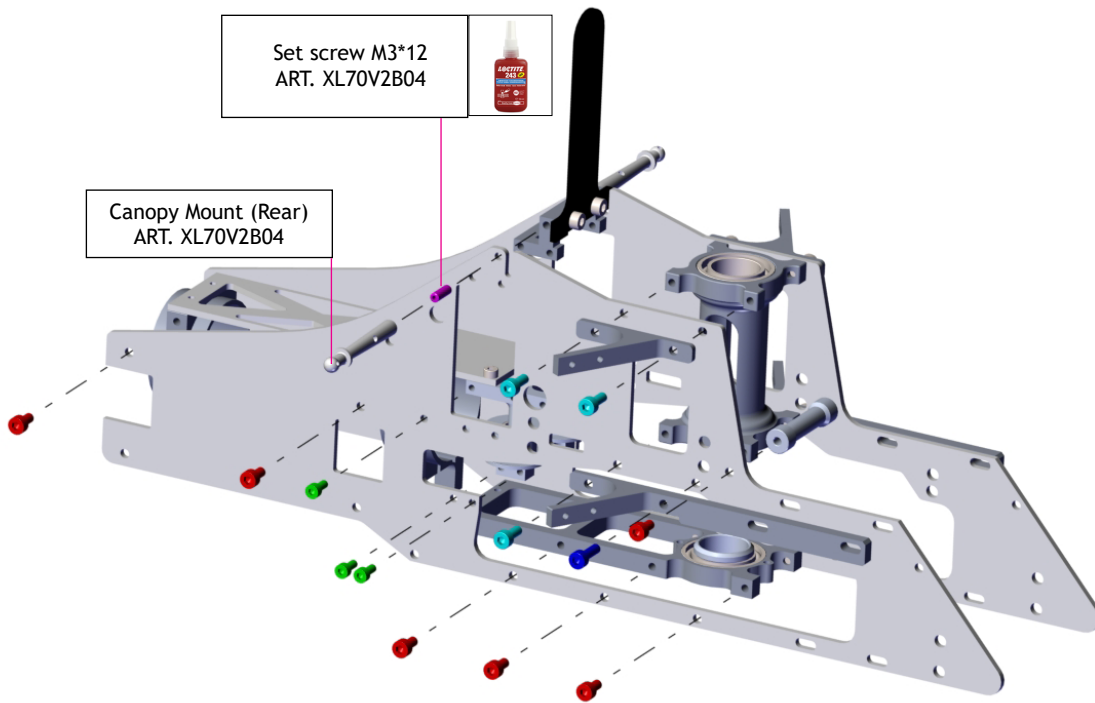









Hex screw M2.5*6
ART. MSH71110

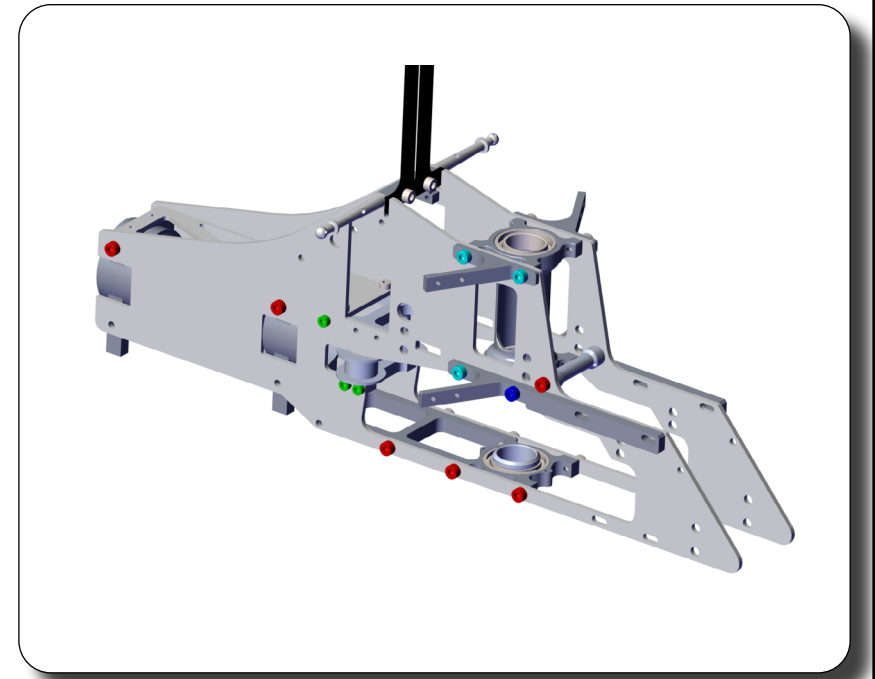



 
Hex screw M3*6
ART. MSH71108

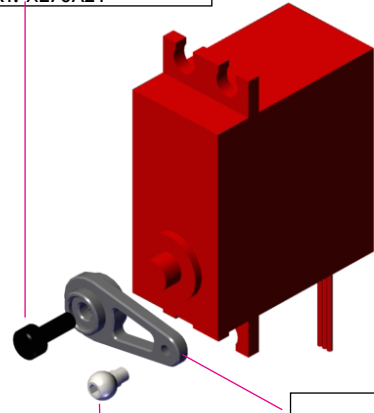





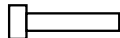
	  <p>Hex screw M3*6 (Red in picture) ART. MSH71108</p>
	  <p>Hex screw M3*8 (Tiffany Blue in picture) ART. MSH71109</p>
	  <p>Hex screw M3*10 (Blue in picture) ART. MSH71114</p>
	<p>Hex screw M2.5*6 (Green in picture) ART. MSH71110</p>

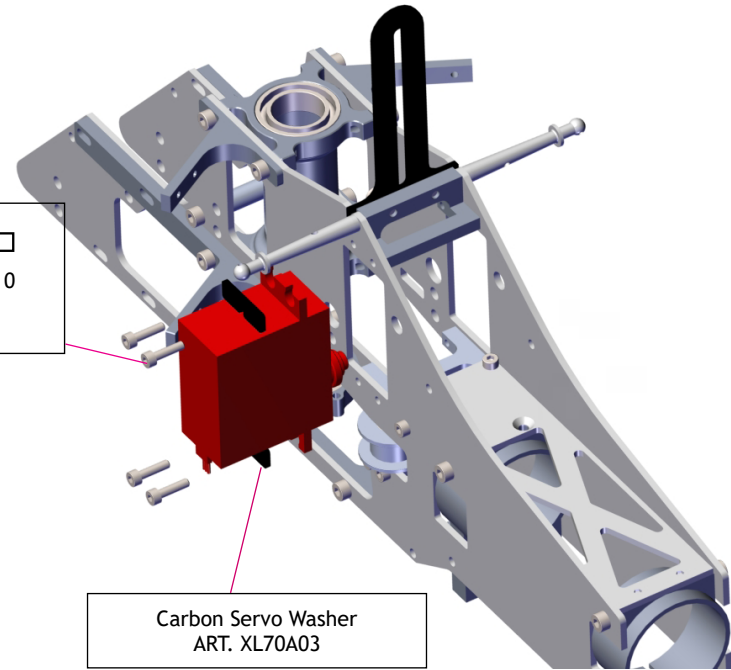


 Button head screw
M3*6
ART. XL70A21






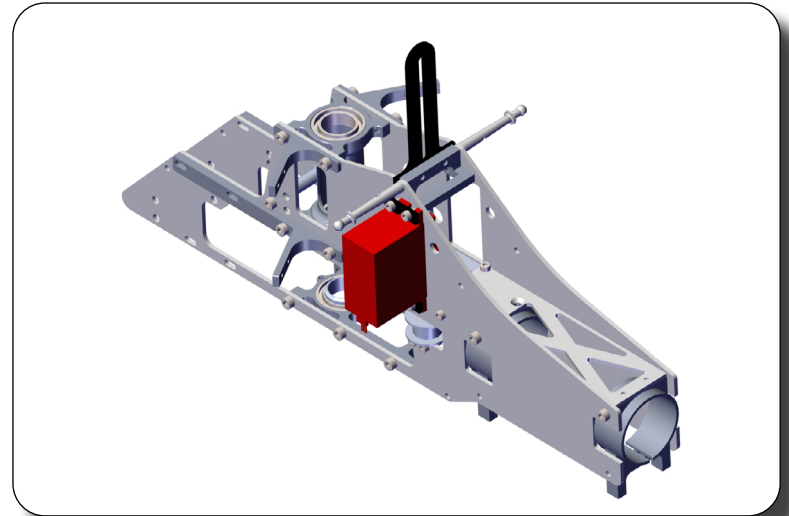
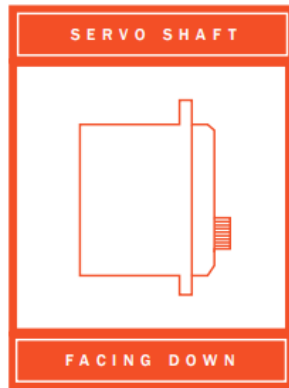
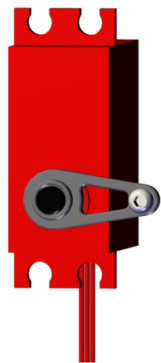
Servo Horn
XL70A04
Optioal: XL70A04-1


 
Hex Screw M2.5*10
ART. MSH71103
XL70A03



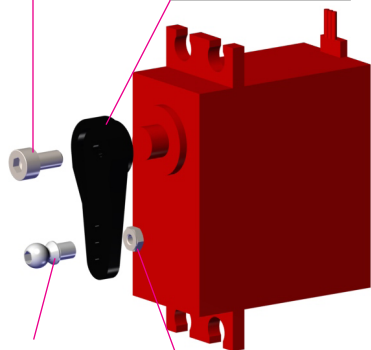
Carbon Servo Washer
ART. XL70A03



  
Ball 5mm M2.5*3
XL70A04




 Servo Horn Screw
M3x6
ART. XL70A21

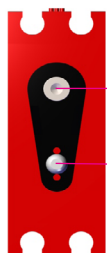
Servo horn
XL52A19



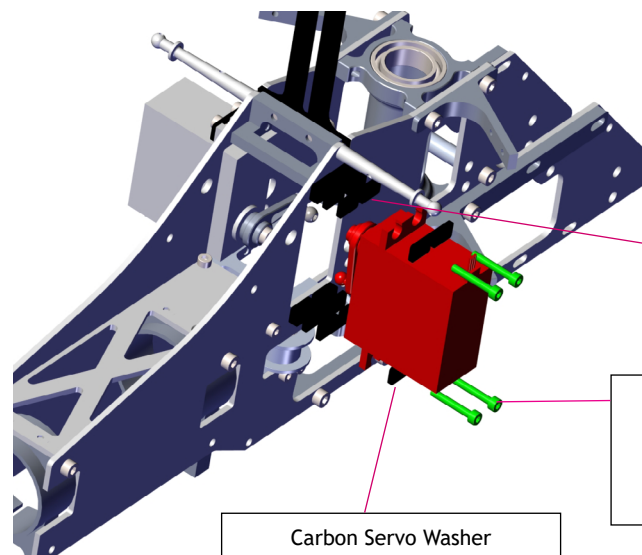
 
Ball 4.5mm M2*4.8
MSH41009

M2 Nut
MSH41119

 Servo Spline facing up




16-18MM

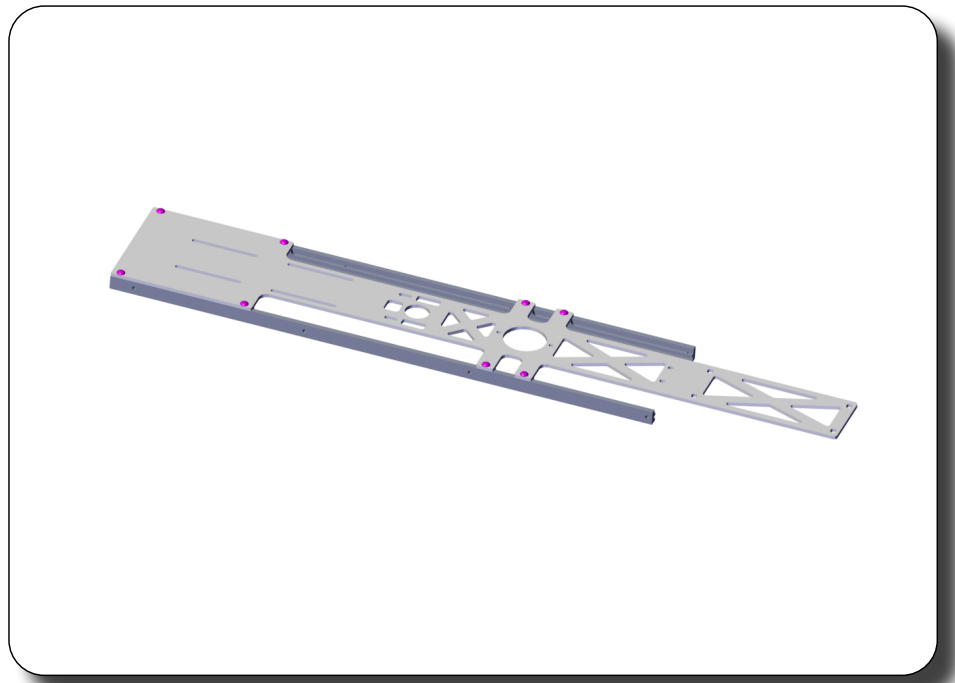
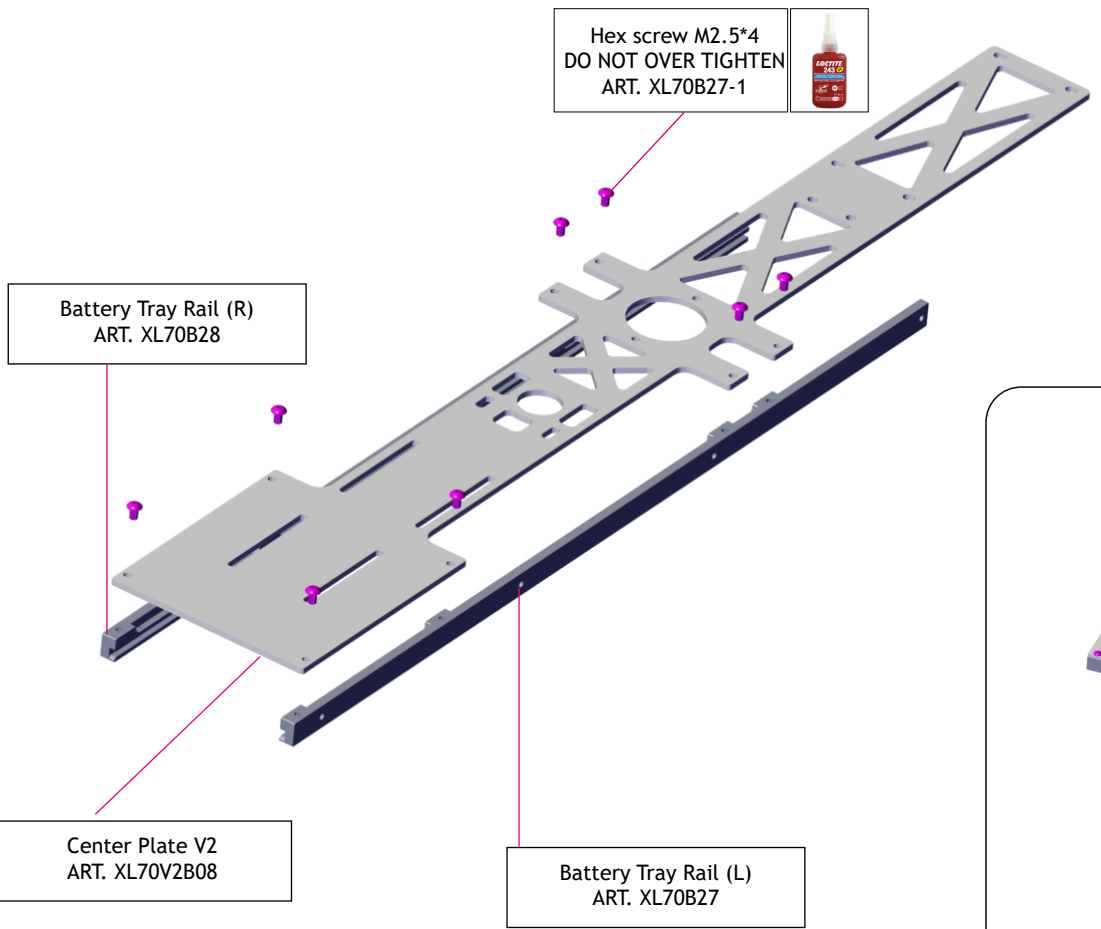


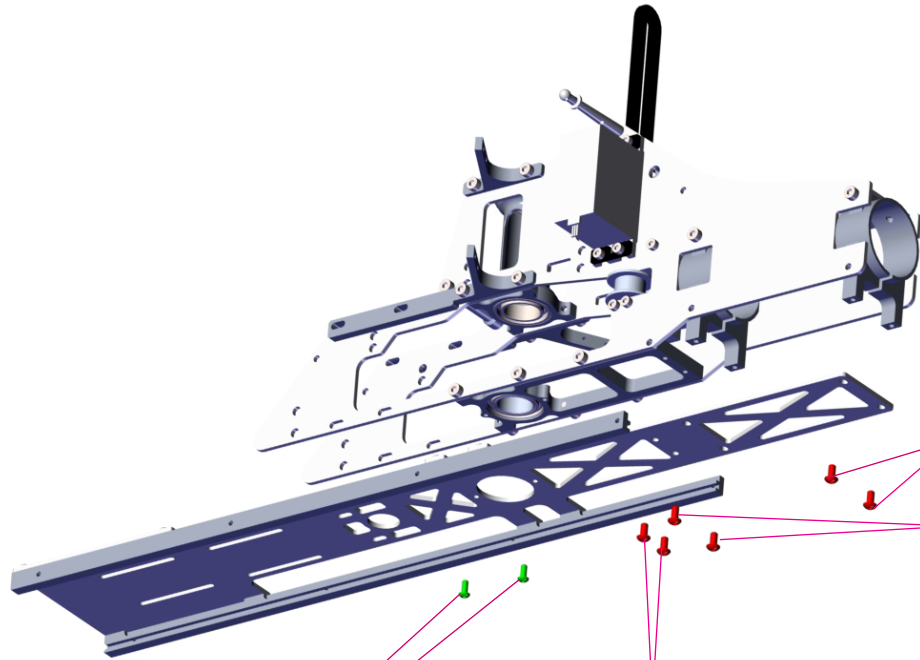
Carbon Servo Washer 2mm
ART. XL70V2A02

  
Hex screw M2.5*16
ART. XL70V2A02

Carbon Servo Washer
ART. XL70A03


The exact number of "Carbon Servo Washer 2mm" you use will vary depending on the exact servo and servo horn used. Only add enough spacers to prevent the tail servo from binding on the elevator servo arm/ball throughout it's full range of travel.





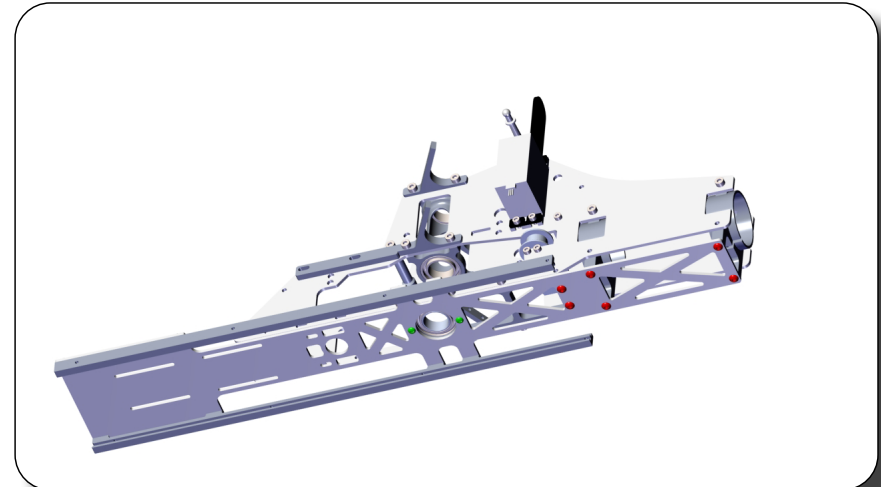
Hex screw M2.5*6
ART. MSH71110

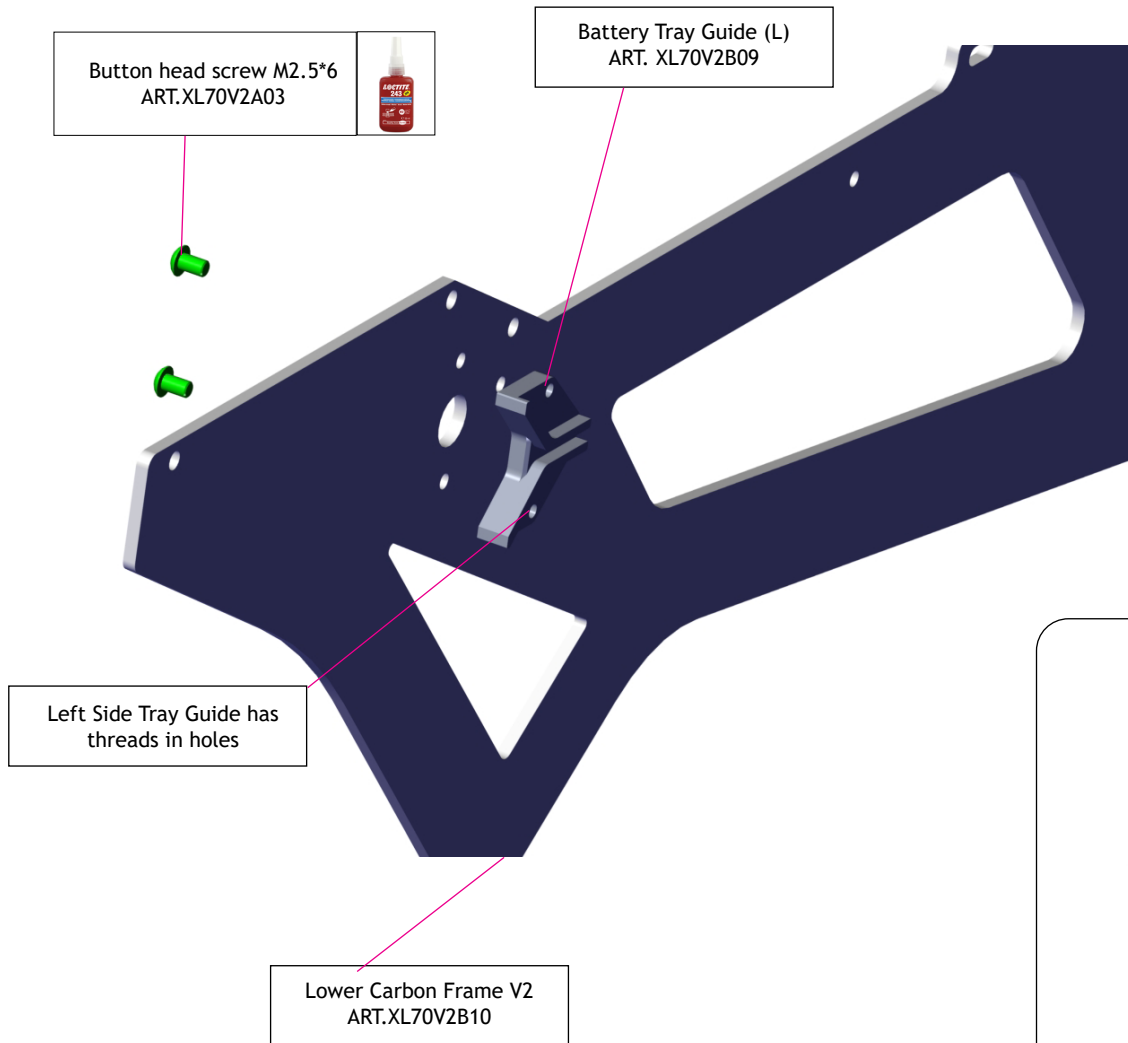


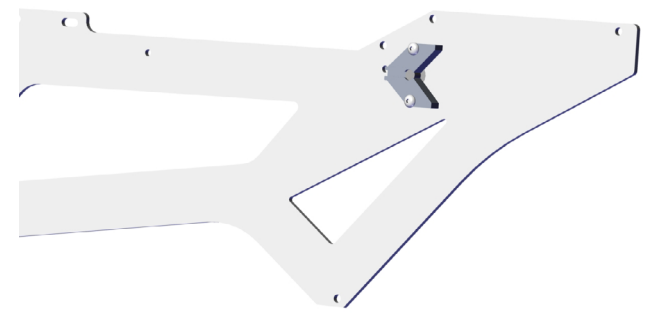
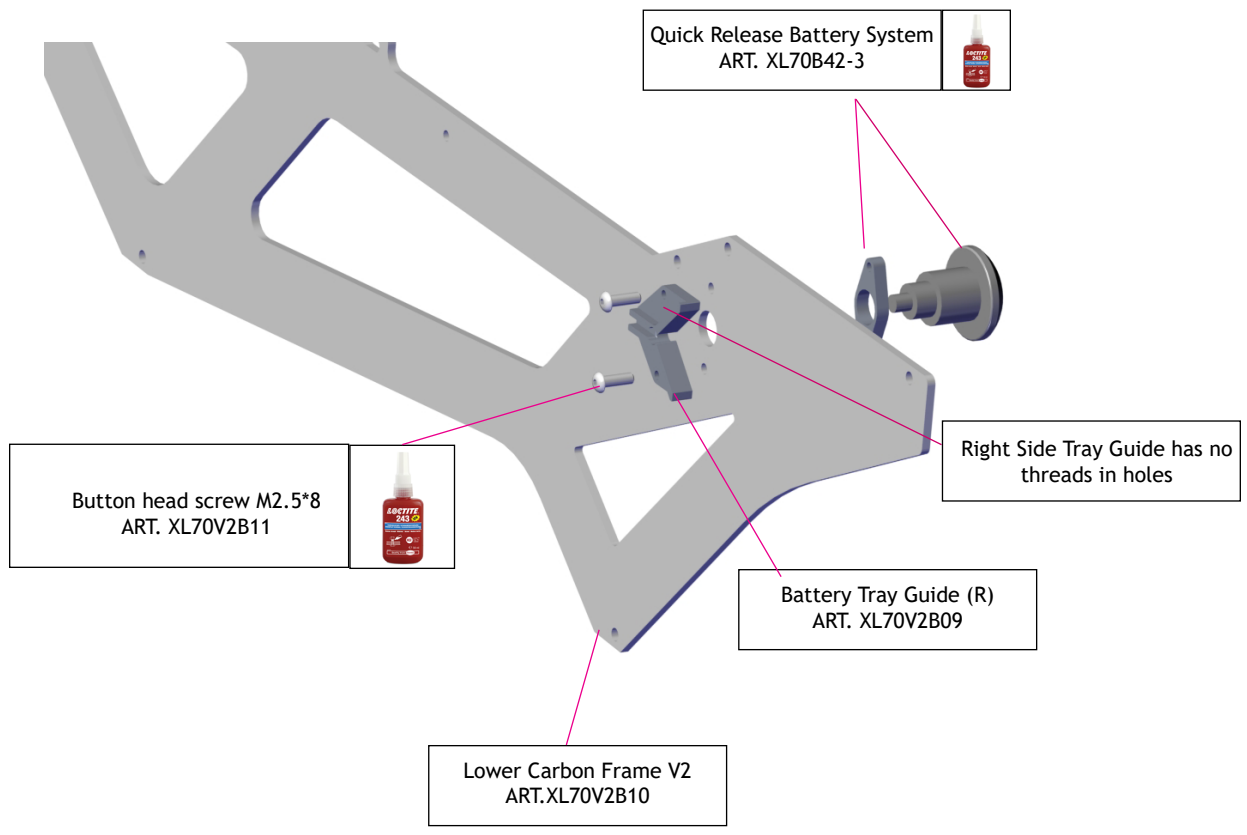
Button head screw M3*6
Fully tighten



Button head screw M3*6
Do not tighten yet
ART.XL70A21







Button head screw M3*6
ART.XL70A21

Aluminum Frame
Spacer
ART. XL70B39

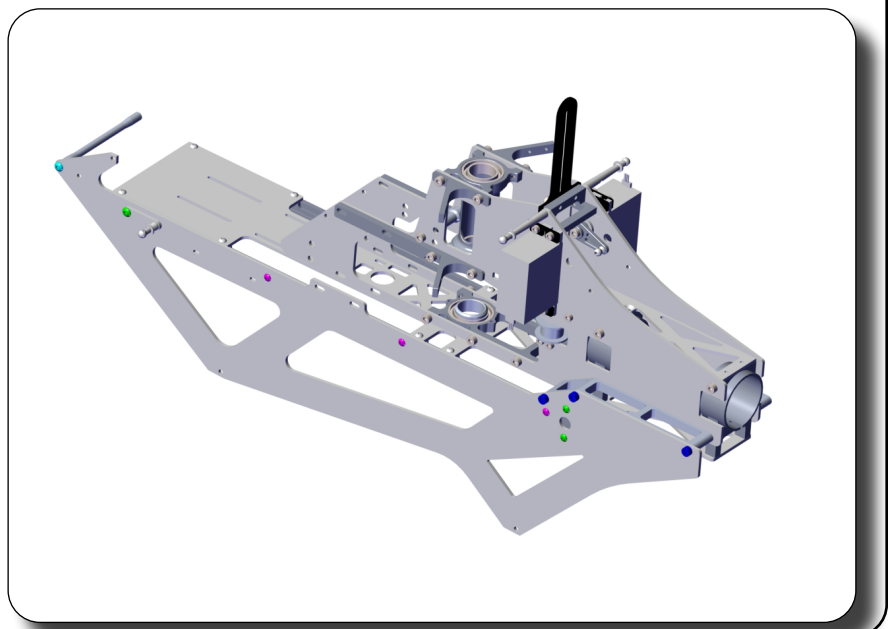
Button head screw M2.5*6
DO NOT OVERTIGHTEN
ART. XL70V2A03

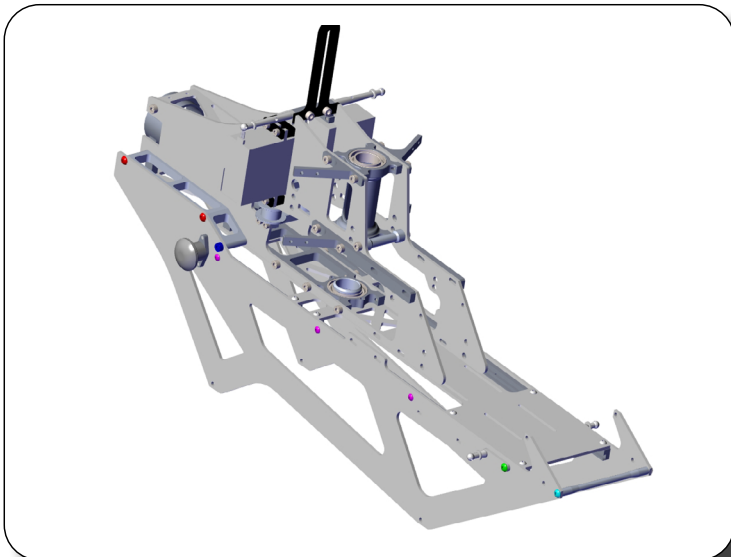
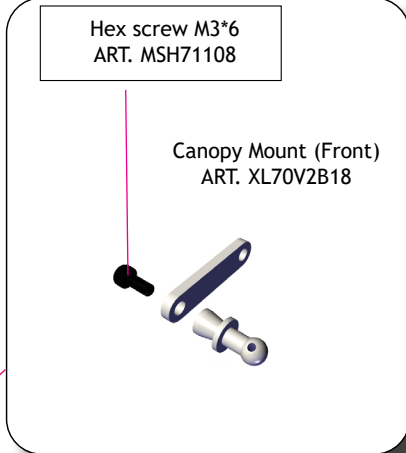
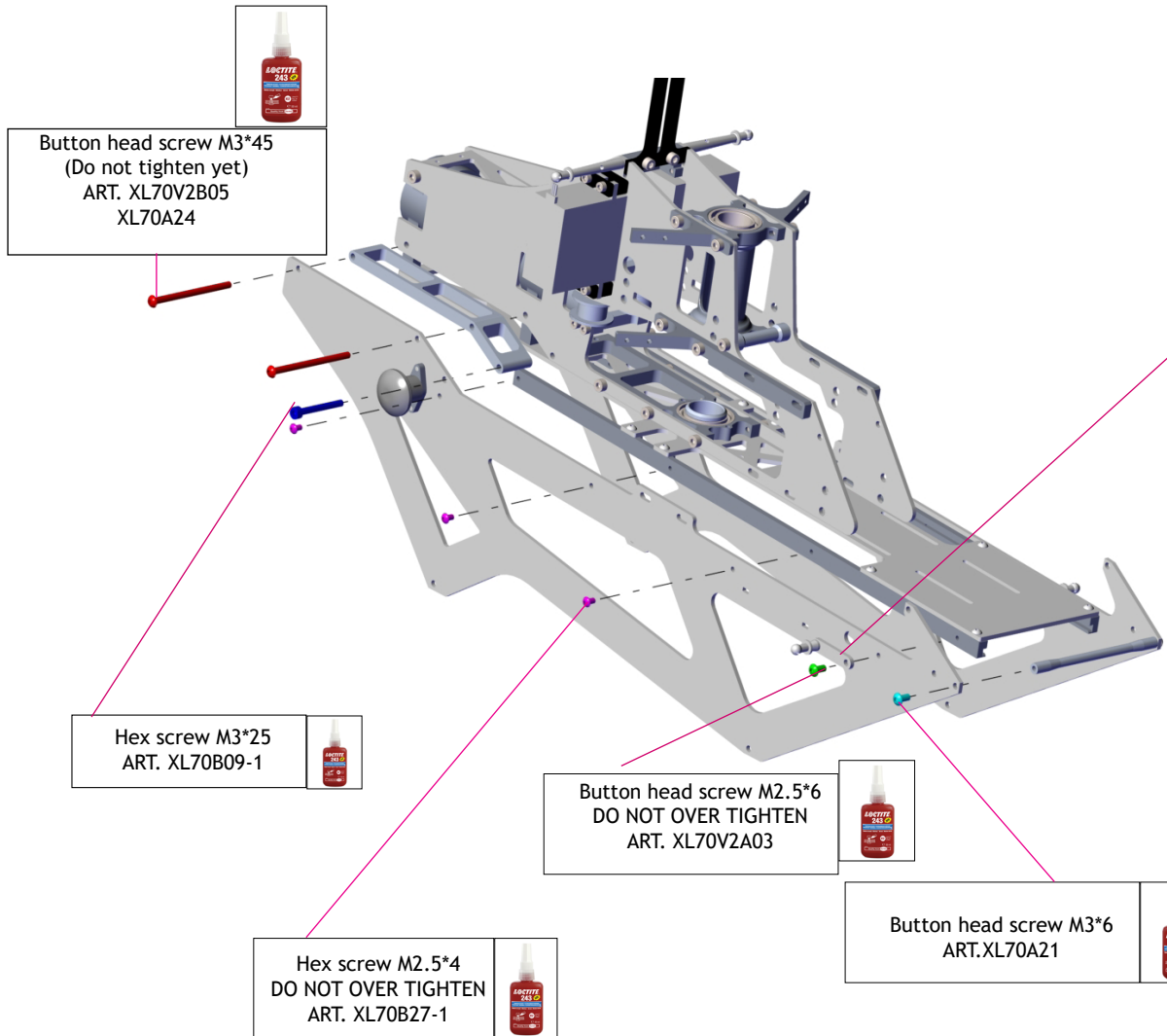
Hex screw M3*6
ART. MSH71108

Canopy mount(Front)
ART. XL70V2B18

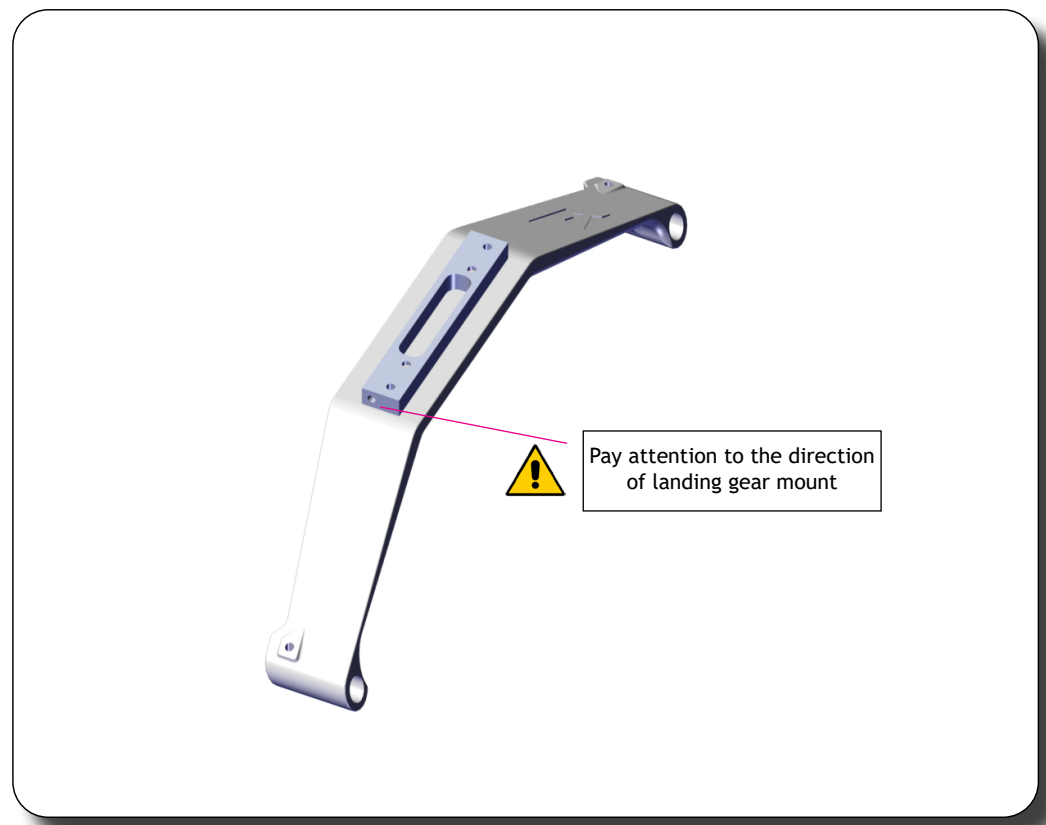
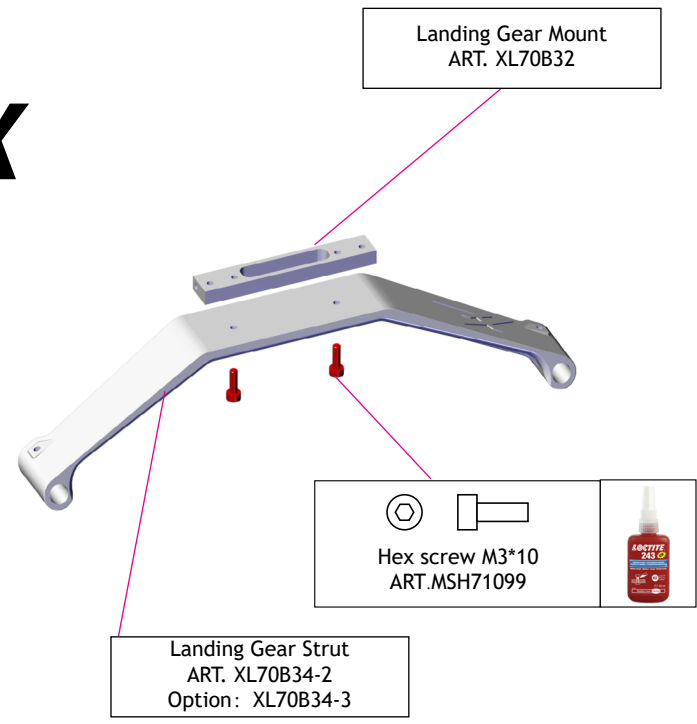
Hex screw M2.5*4
DO NOT OVERTIGHTEN
ART. XL70B27-1

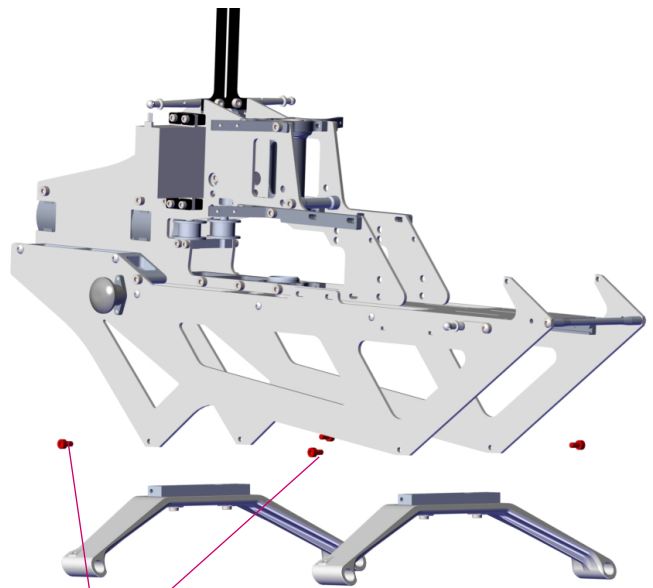
Hex screw M3*25
ART. XL70B09-1





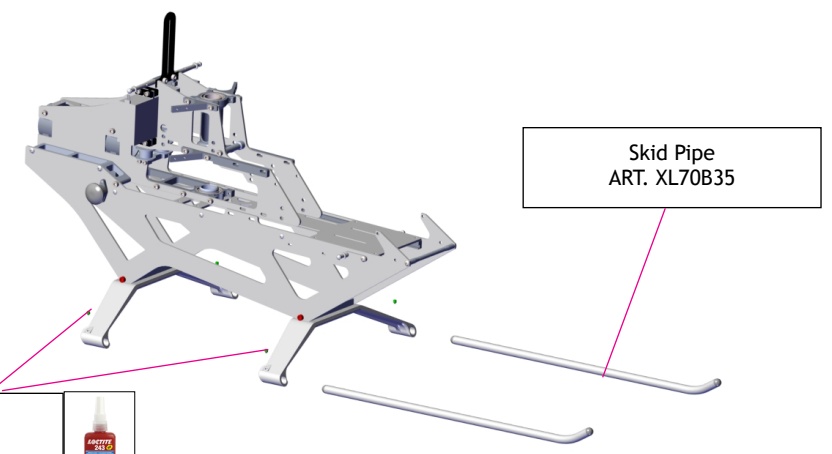
2X



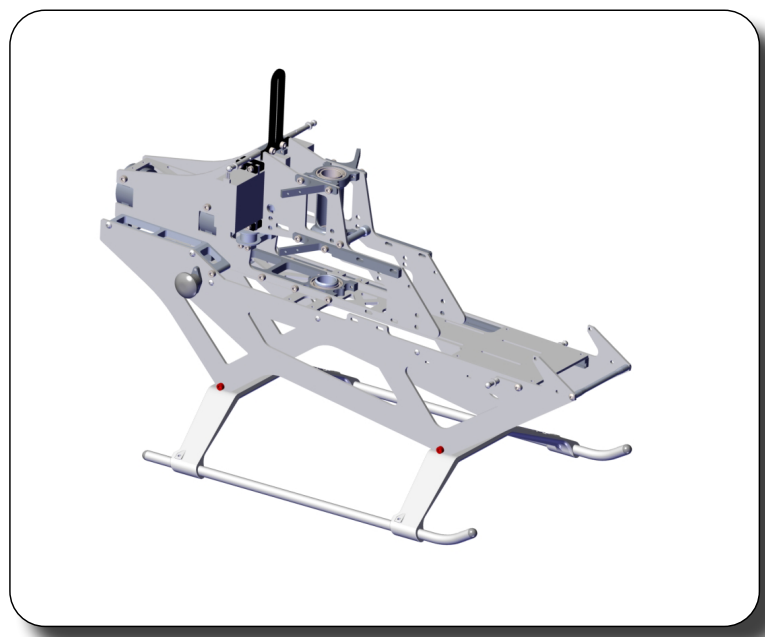


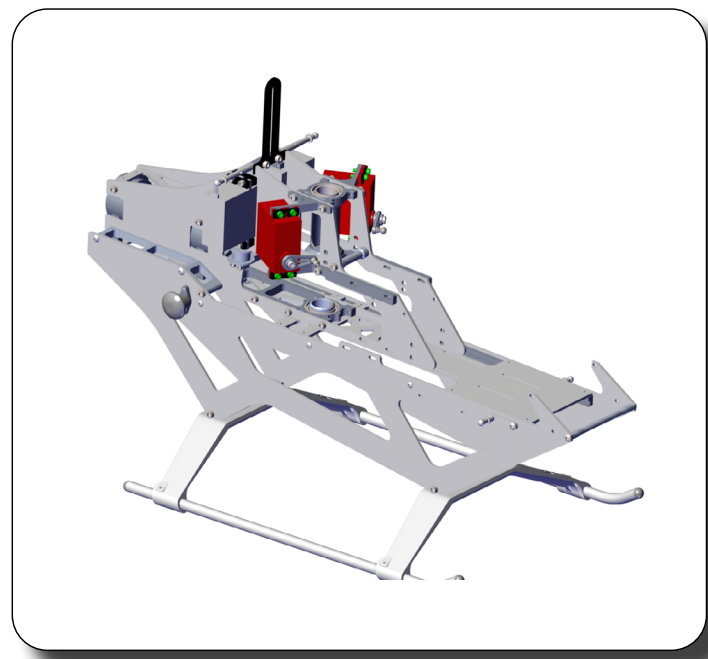
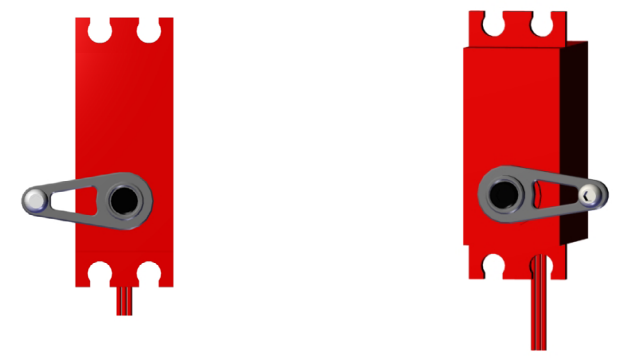
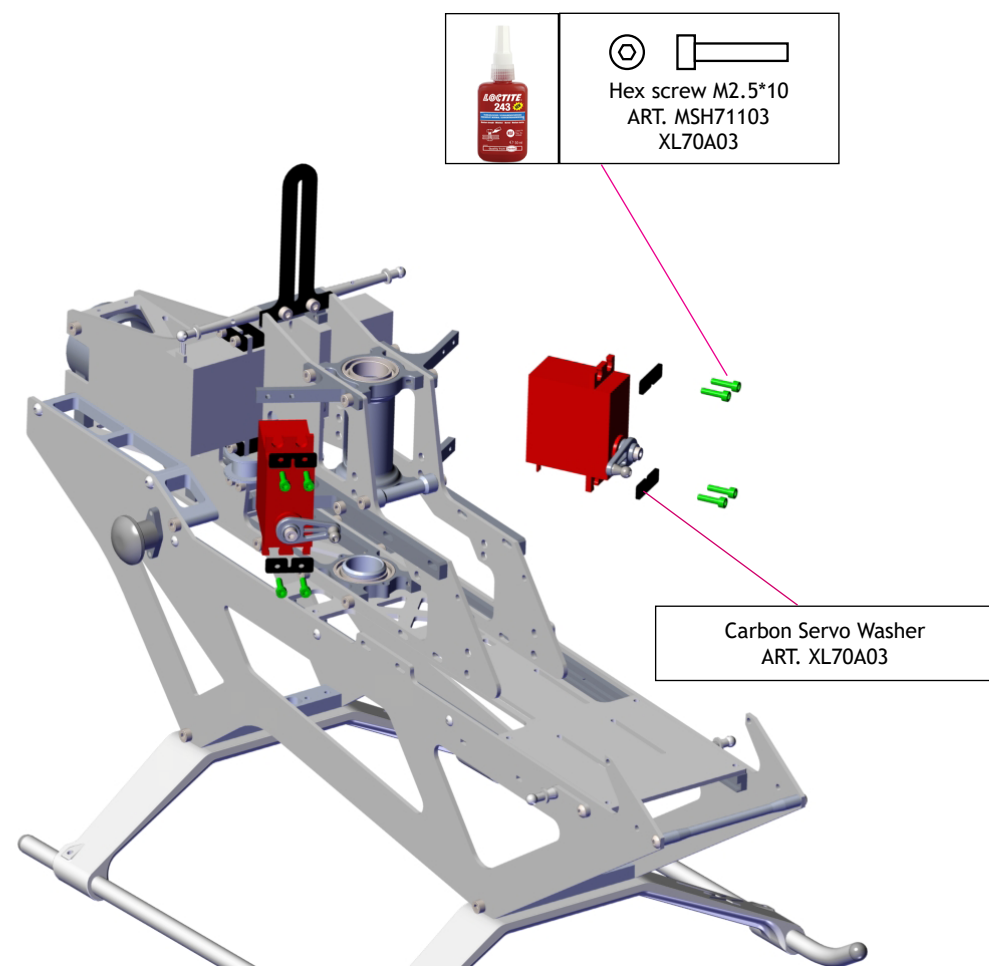
	 
	Hex screw M3*6 ART. MSH71108

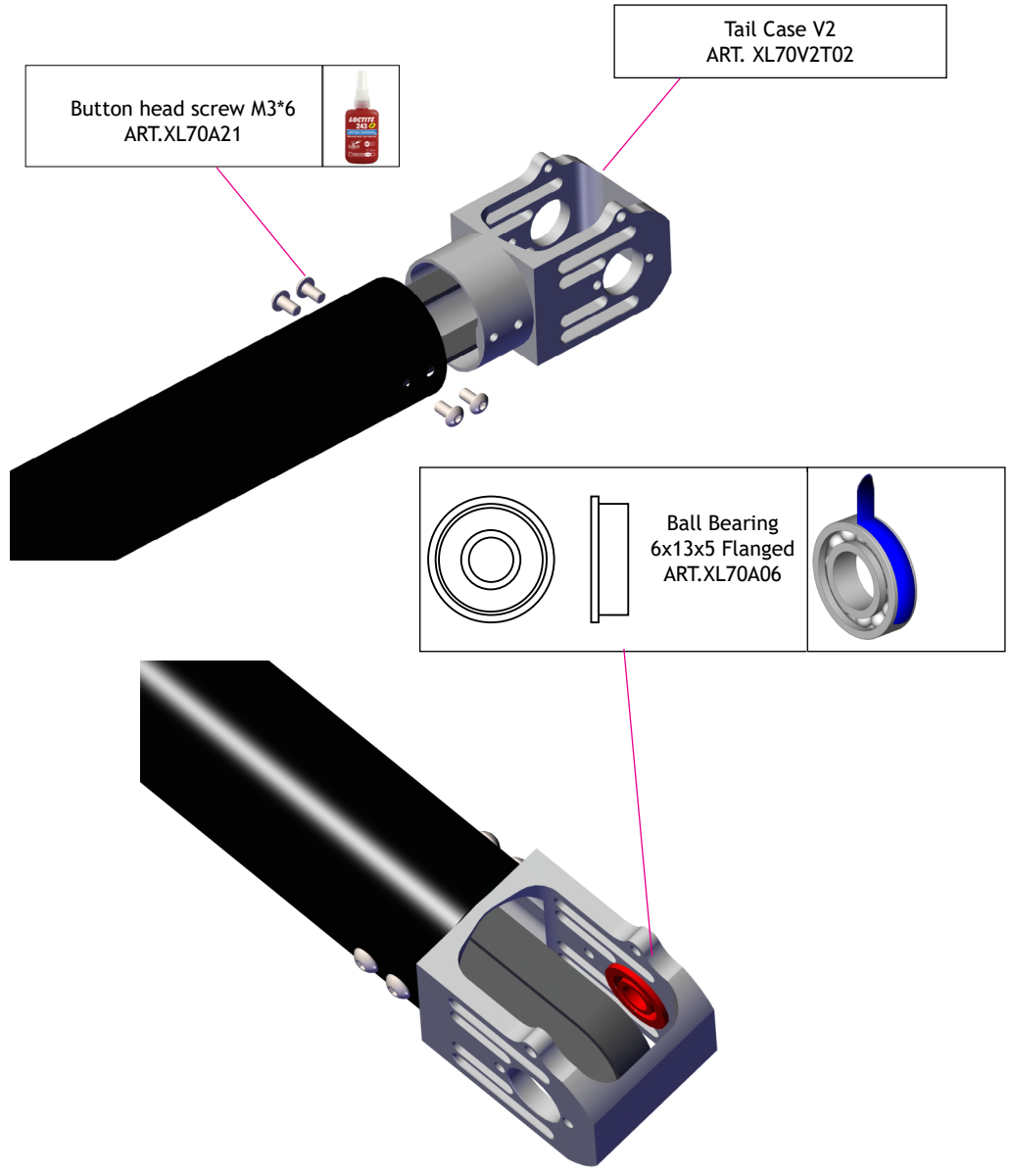
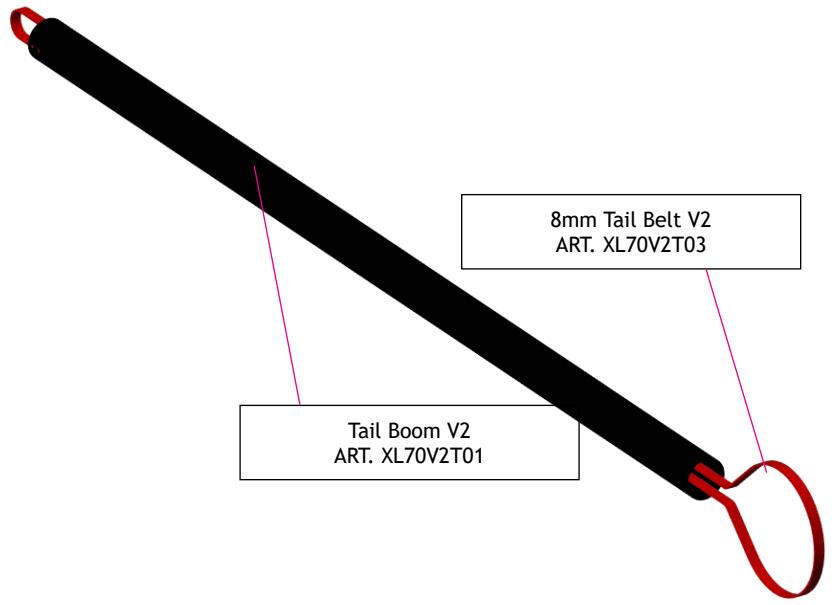
Grub Screw M3*3 XL70B34-3	
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Skid Pipe
ART. XL70B35







Tighten securely, and ensure the grub screw engages with the small recess in the tail shaft

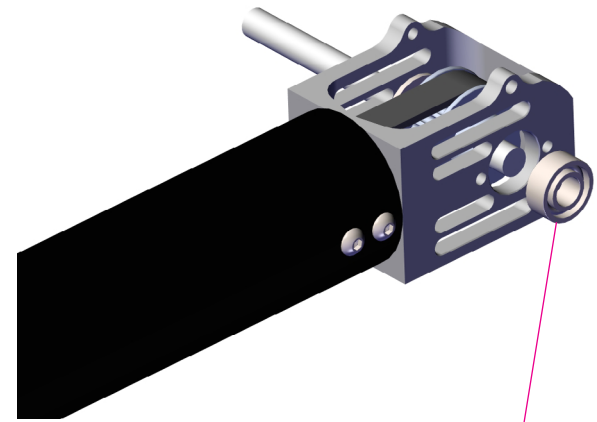
Grub screw M4*4
MSH71122



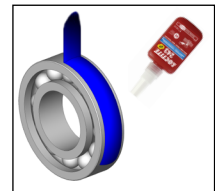
Tail Pulley 21T
ART. XL70V2T04
Option:XL70V2T04-1

Tail Shaft
ART. XL70T13

O ring
ART. XL70A17



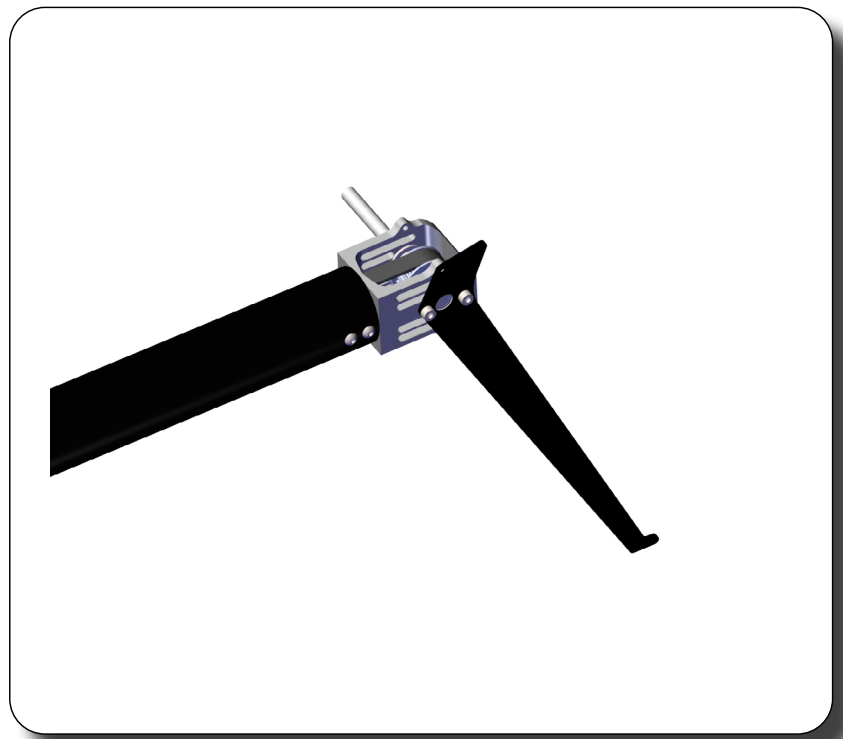
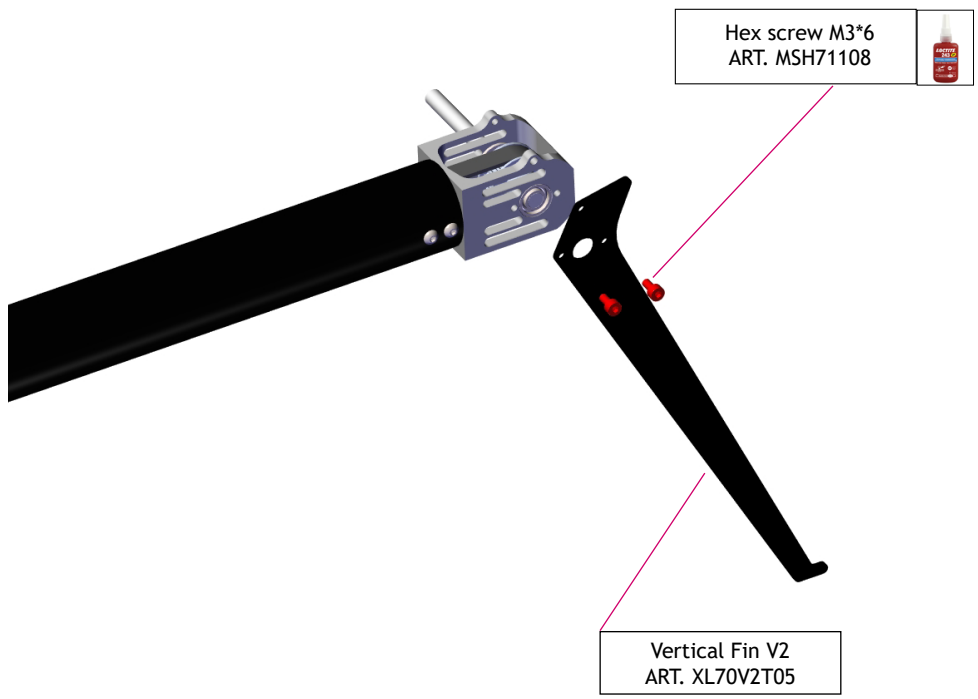
Pay attention to the direction





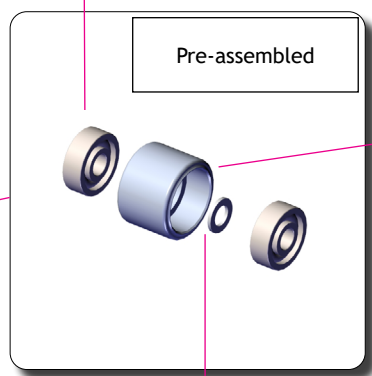
Ball bearing
6*13*5
ART. XL70A06-1



Add 6*8*0.1 washer as needed for adjusting play



  Ball bearing
3*9*4
ART. XL70A20

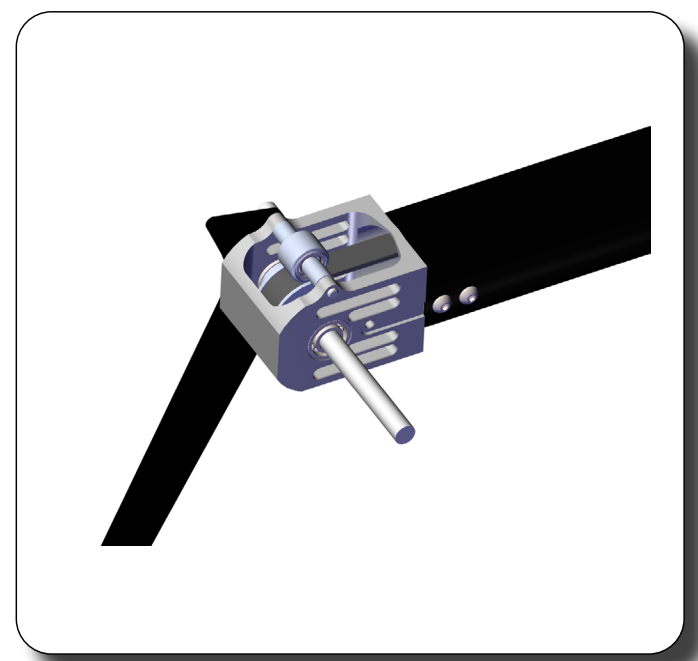
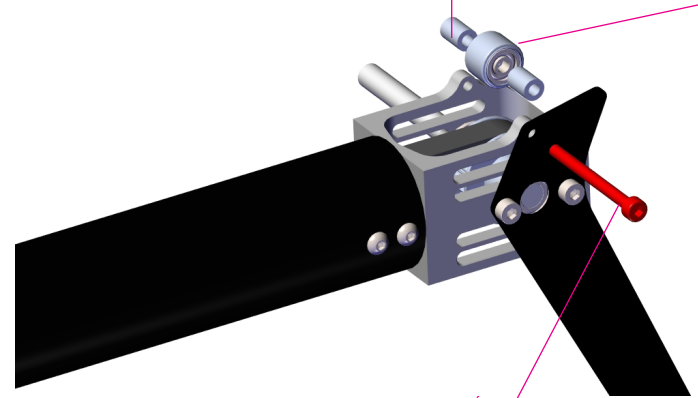



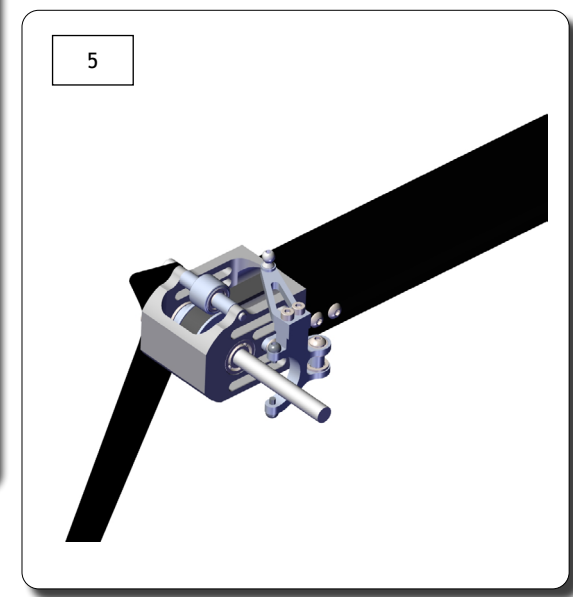
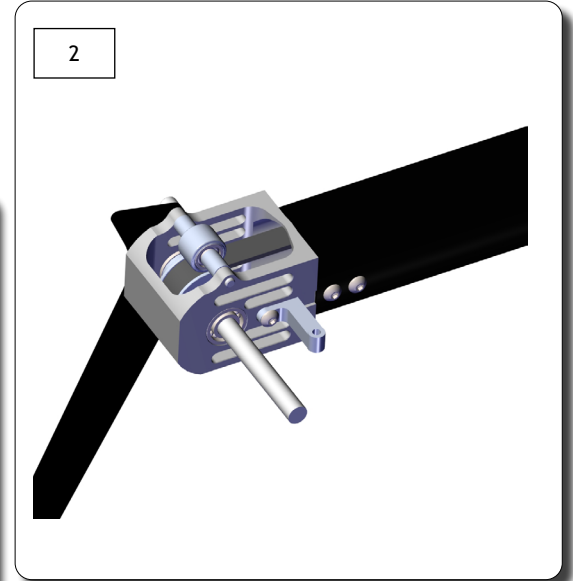
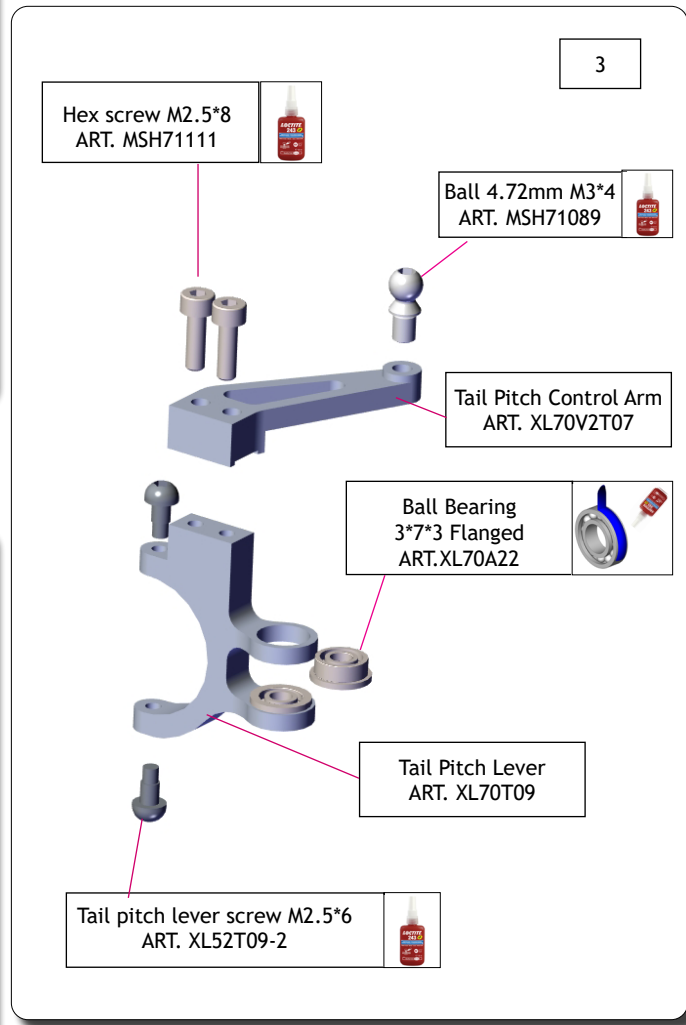
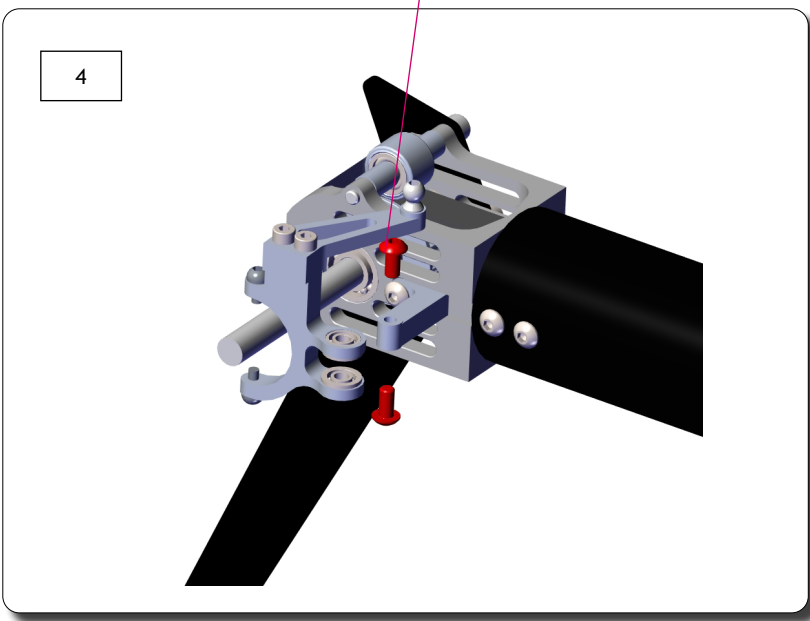
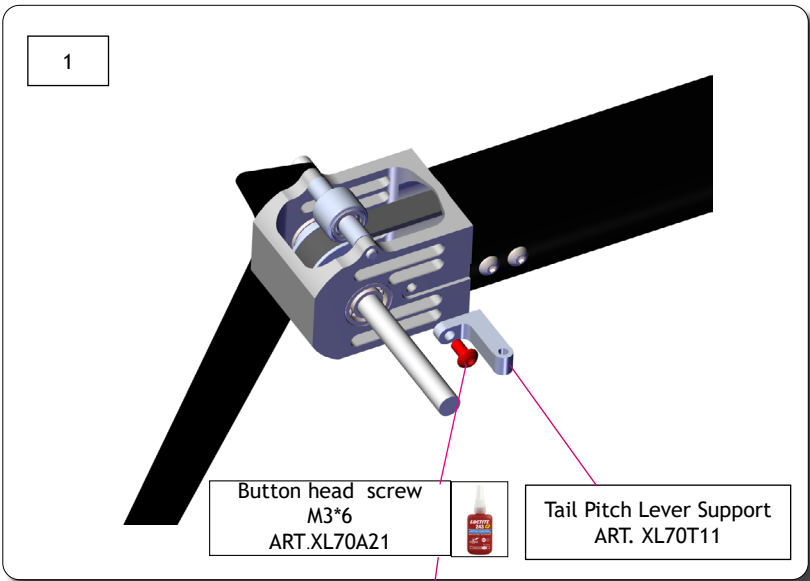
Rear Belt Idler Pulley V2
ART. XL70V2T06

Spacer 3*5*9.75
ART. XL70V2T06

Spacer 3*5*0.5
ART. XL70V2T06

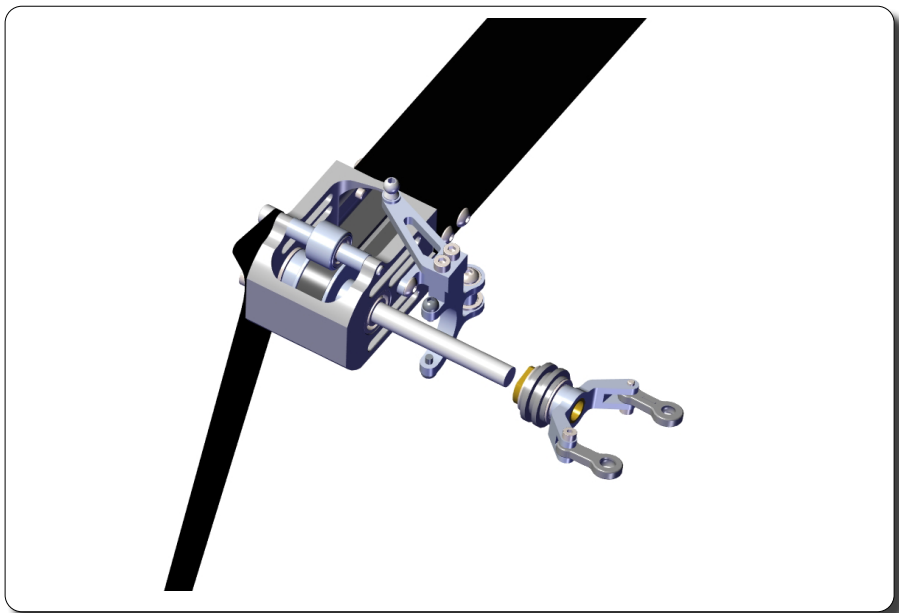
Hex screw M3*35
ART. XL70V2T02







Tail pitch assembly
ART. XL70T12



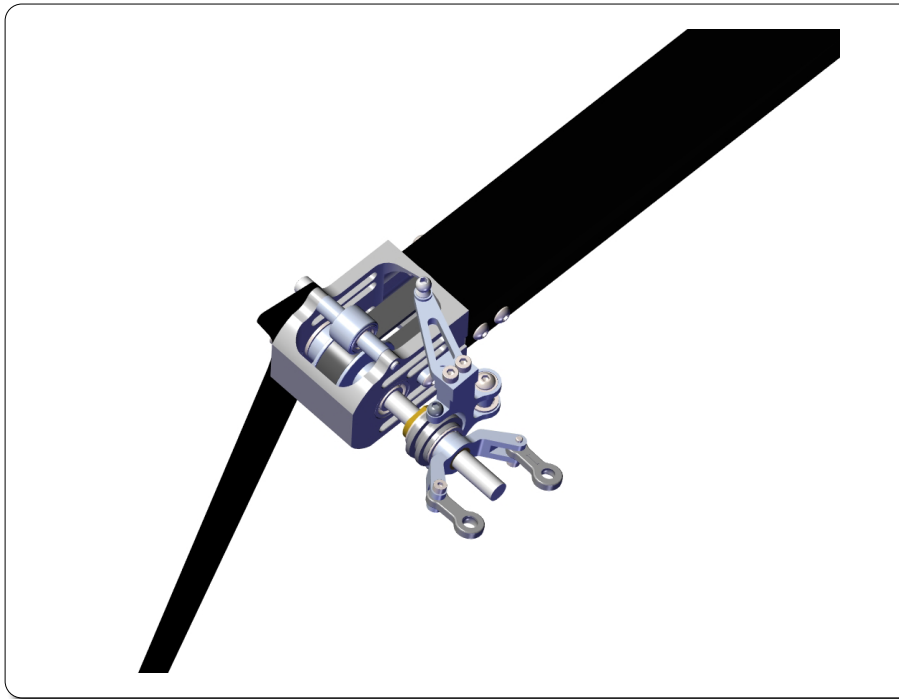
Tail Shaft Slide Bushing
ART. XL70T12-1
Loctite is Extremely Important!

Tail Pitch Slider Bearing Assembly
ART. XL70T12-2

Tail Control Link
ART. XL52T11

Hex screw M2*8
(Do not overtighten)
ART. MSH41128

Pitch Slider Fork Bushing
ART. XL70T12-3



Washer 8*10*0.3 ART. XL70T19

Thrust Bearing 5*10*4 ART. XL70T18

Tail grip ART. XL70T16

Ball 4.72mm M2.5 ART. XL70A01

Ball bearing 5*10*4 ART. XL70T17

ID Bigger Towards Tail Hub
ID Smaller Towards Tail Blade

Apply grease on thrust bearing

Internal hole SMALLER

Internal hole BIGGER

Tail Spindle ART. XL70T20

M4 Washer ART. XL70T20

Tail Center Hub ART. XL70T14

CNC Washer 5*8*1 ART. XL70T19

Hex screw M4*6 ART. XL70T20

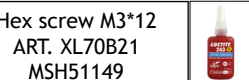
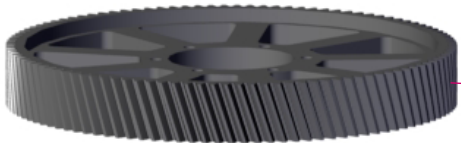
Tail Damper ART. XL70T15

Tighten securely, and ensure the grub screw engages with the small recess in the tail shaft

Grub screw M4*4 ART. MSH71122

Pay attention to the direction of tail grip arms

Hex screw M3*12
ART. XL70B21
MSH51149

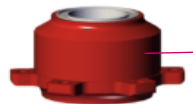



Main Gear 106T Mod1 (ART. XL70B20) Included in Kit

Option:

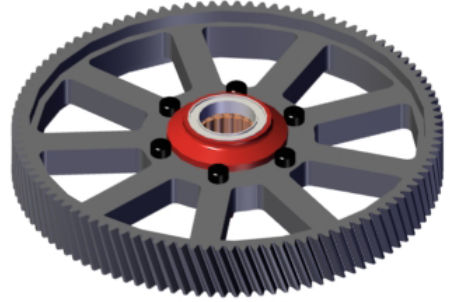

18mm Heavy Duty Main Gear 106T Mod1 (ART. XL70V2B11)
Must use V1 Pinions (ART. XL70G10, XL70G11, XL70G12)

Main Gear 109T Mod1 (ART. XL70B20-1)
Must use V2 Pinions (ART. XL70G11-1, XL70G12-1, XL70G13)

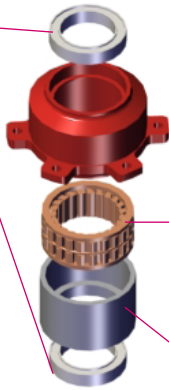


Main Gear Hub (Preassembled)
ART. XL70B21

You may add grease to one-way bearing

Ball bearing
15*21*4
ART. XL70B21-3

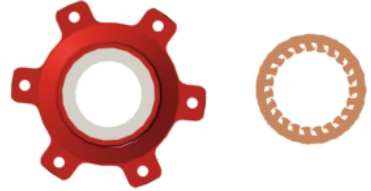


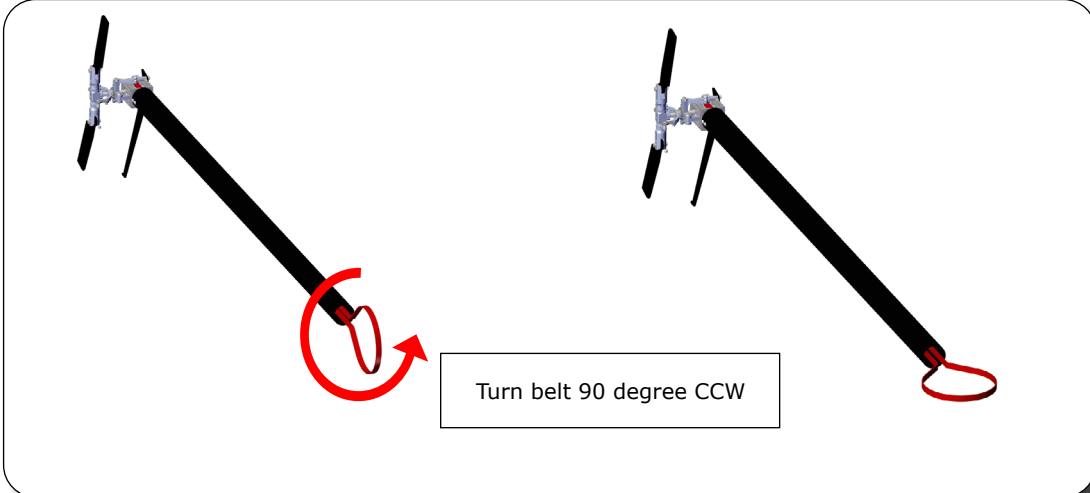
One way bearing (pay attention to the direction)
ART. XL70B21-1

To replace the bearing, heat up the assembly to soften the loctite and it will come out. Use Loctite 638 when reinstalling.

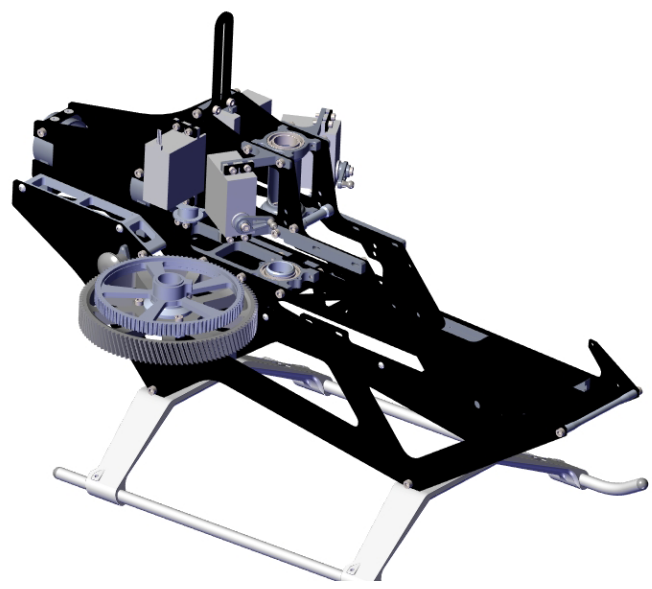
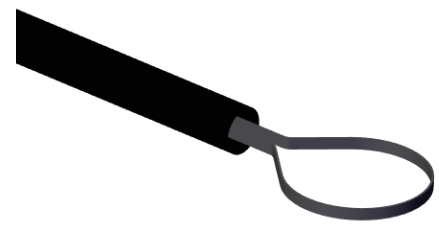
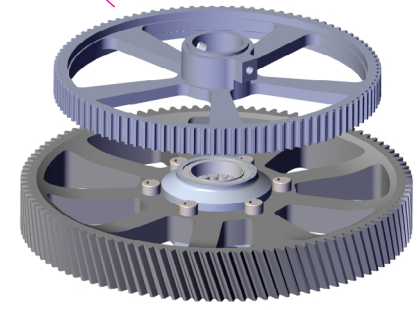
Pre Assembled with Loctite

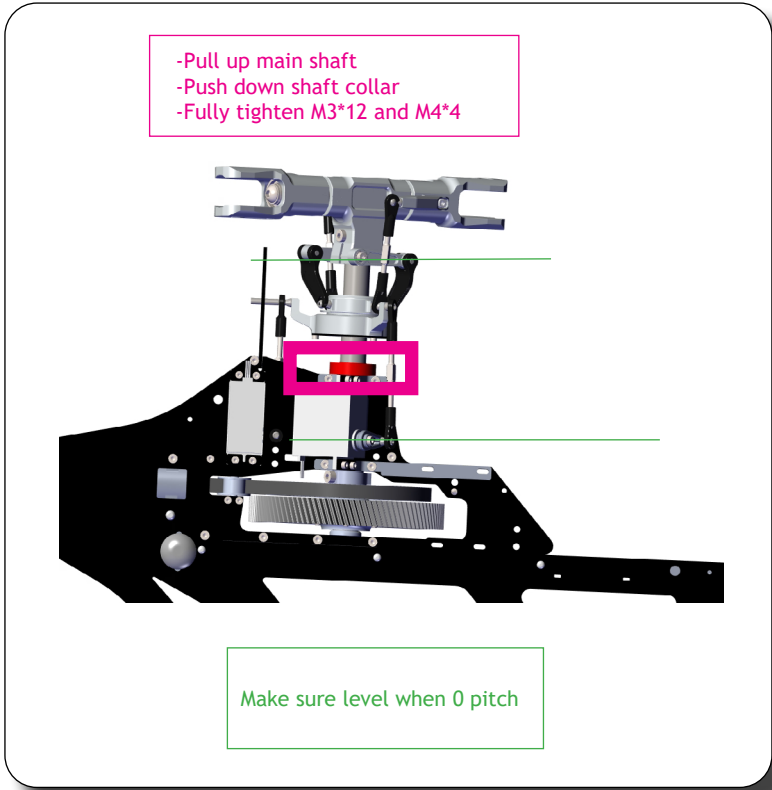
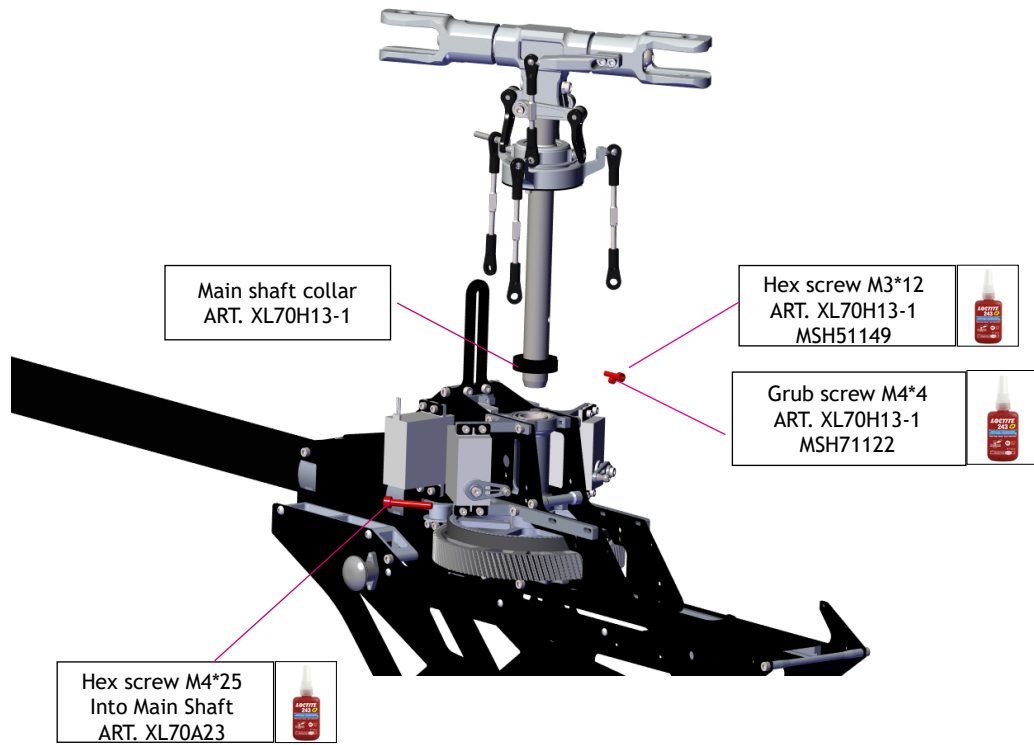
One way bearing direction (from upside)



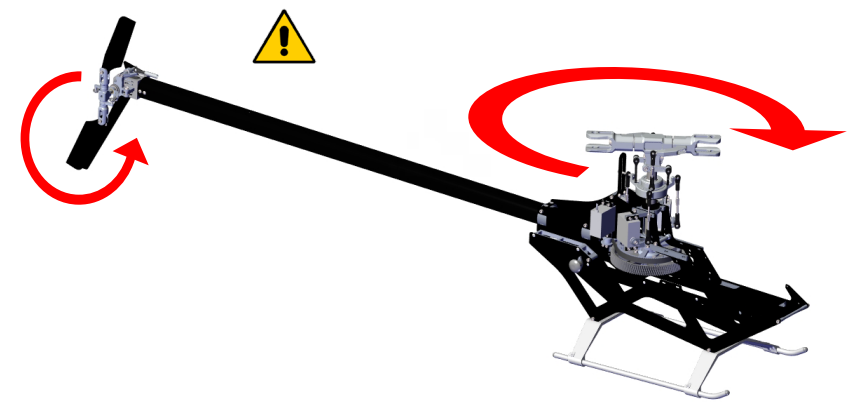


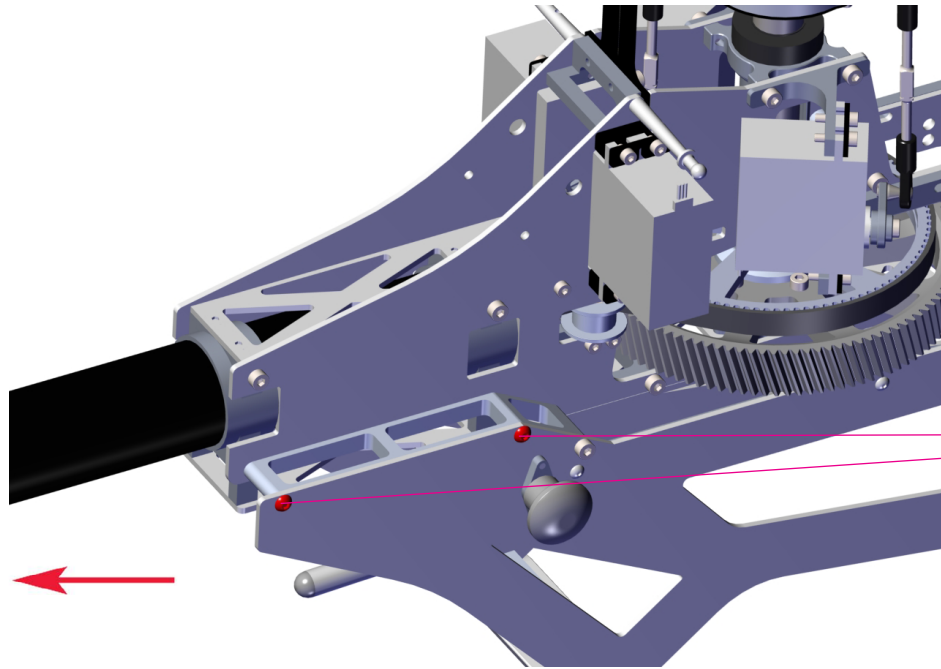
100T Front Pulley
ART. XL70V2B12



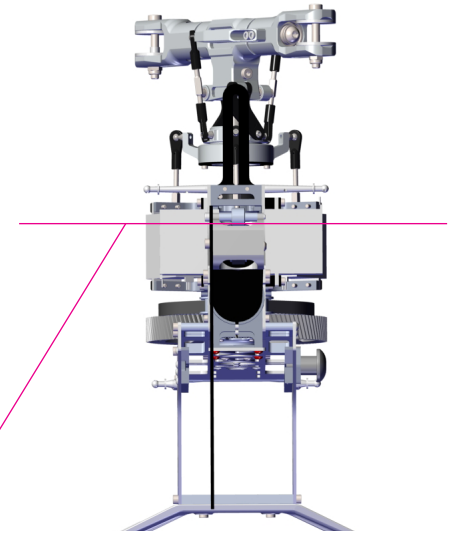


Check the rotation direction during the installation of the belt



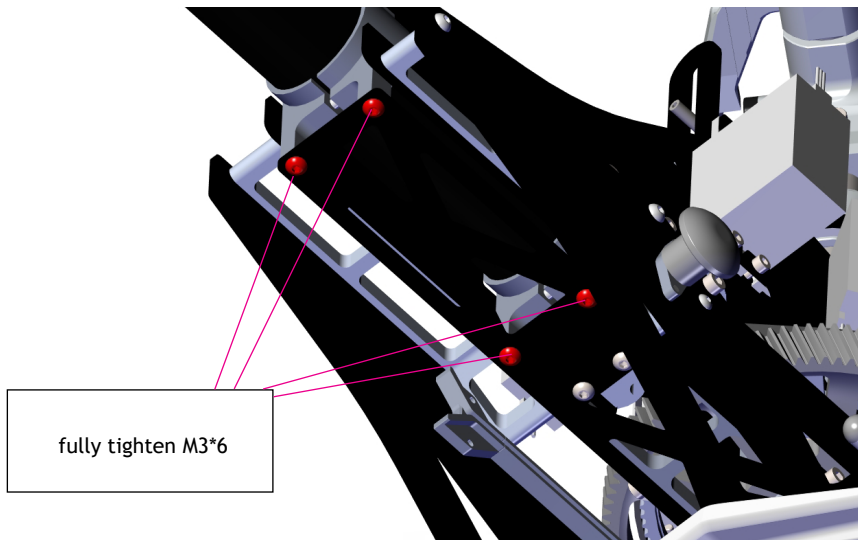


Button head screw M3x45
Set belt tension by pulling backwards on the tail boom. Ensure tail tail case is level, then tighten screws.

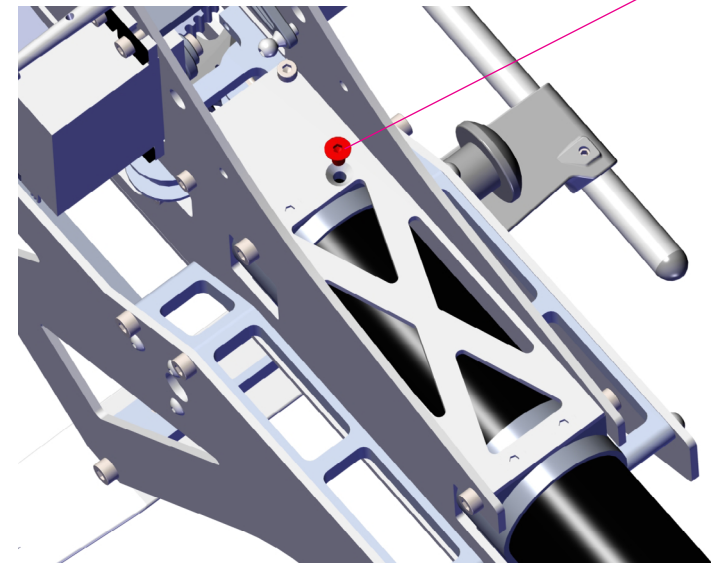


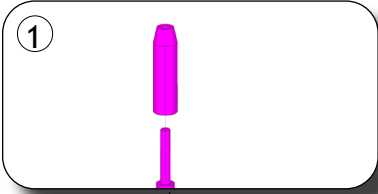
Check tail box lever before fully tightening M3*45 screw

Silver Flat screw M3*6
Goes Through Wall of Tail Boom
ART. XL70A25-1

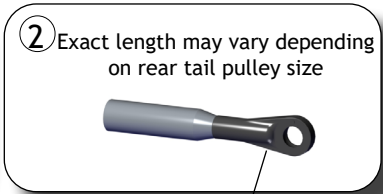


fully tighten M3*6

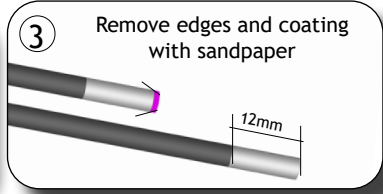




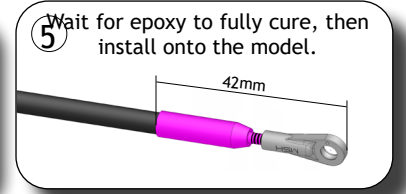
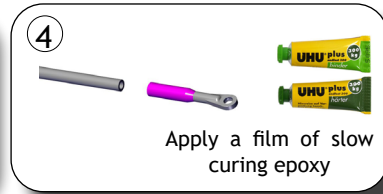
Hex screw
M2.5*12
ART. MSH71104

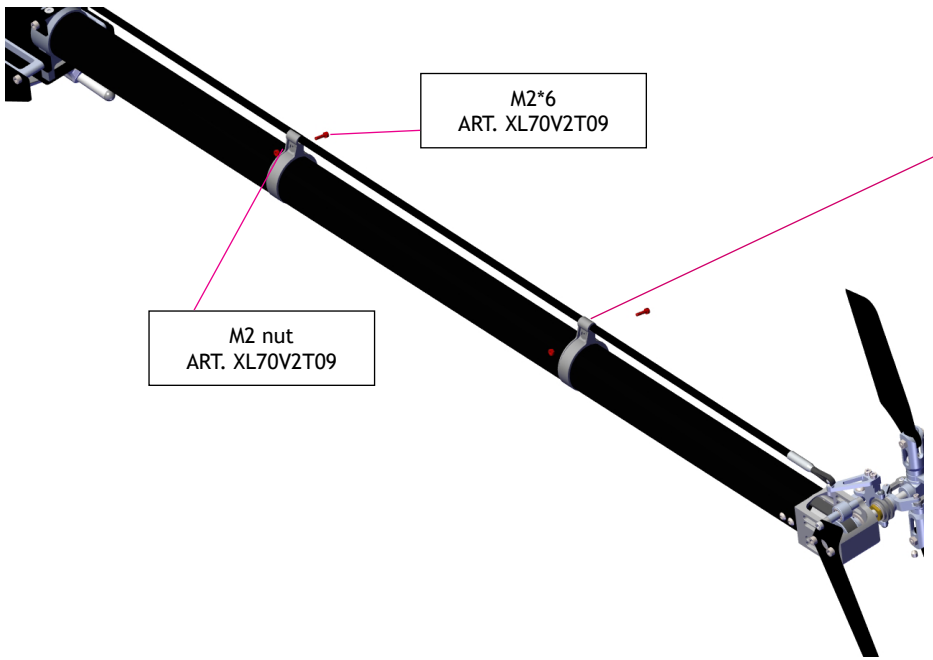


Uniball Link
4.8mm M2.5
ART. MSH71083



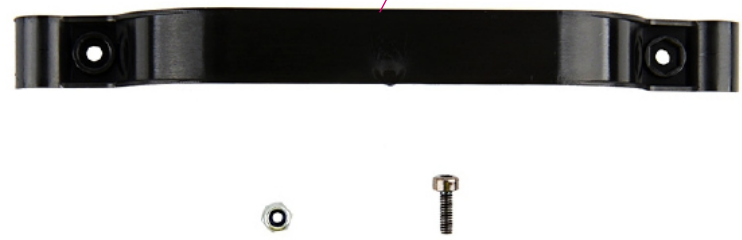
Tail Control Rod V2
ART. XL70V2T08



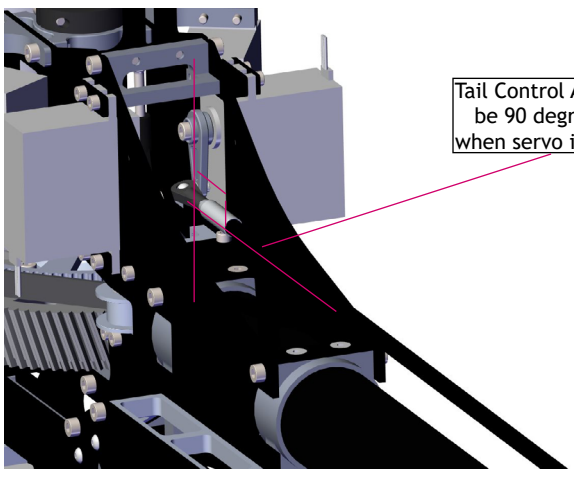


M2*6
ART. XL70V2T09

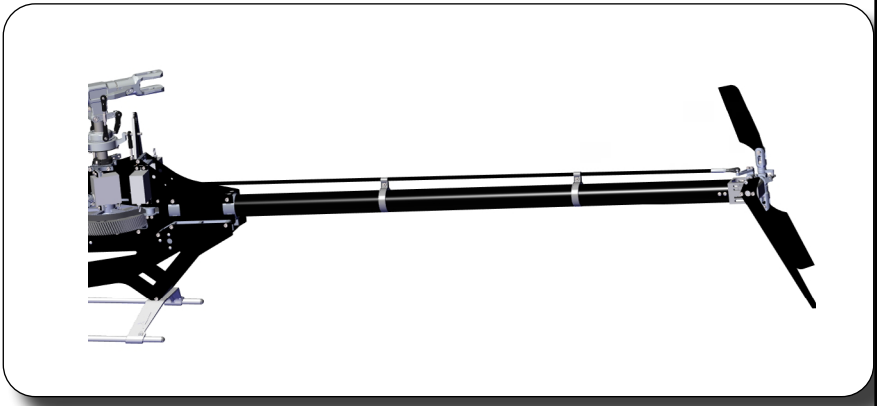
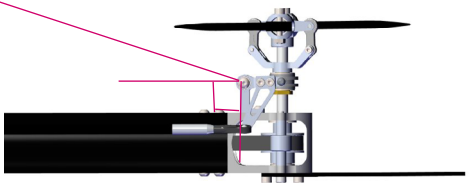
M2 nut
ART. XL70V2T09



Tail Control Rod Guide
ART. XL70V2T09



Tail Control Arm should
be 90 degree angle
when servo is centered



4525-4530 500-550kv motor 6mm shaft (not included)
ART. XL70M01

Motor Mount Upper
ART. XL70B05

719 Angular Contact Ball Bearing
ART. XL70B06

UP

Down

Pay attention to the bearing direction (Pre-assembled)

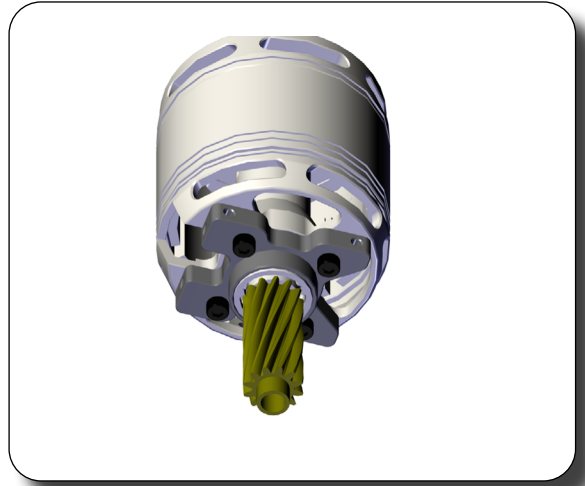
Grub screw M4*4
ART. MSH71122

Motor pinion 11T
ART. XL70G11
Included in Kit

Option:
XL70G10
XL70G12

XL70G11-1 for XL70B20-1
XL70G12-1 for XL70B20-1
XL70G13 for XL70B20-1

Hex screw M4x10
ART. MSH71116



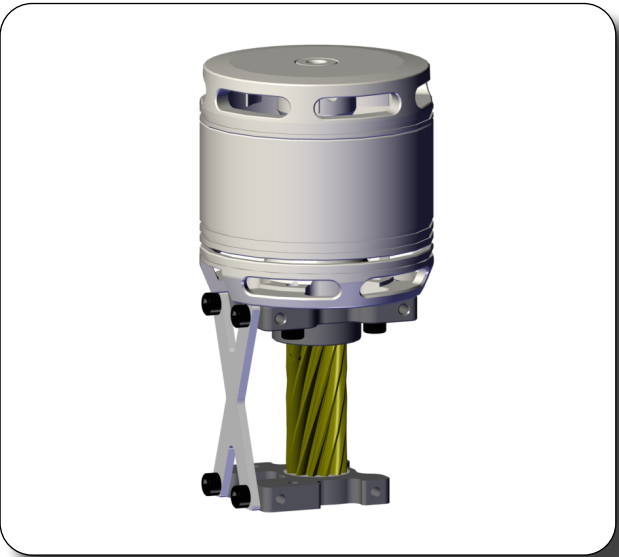
Ball Bearing 8*16*5
ART. XL70A16

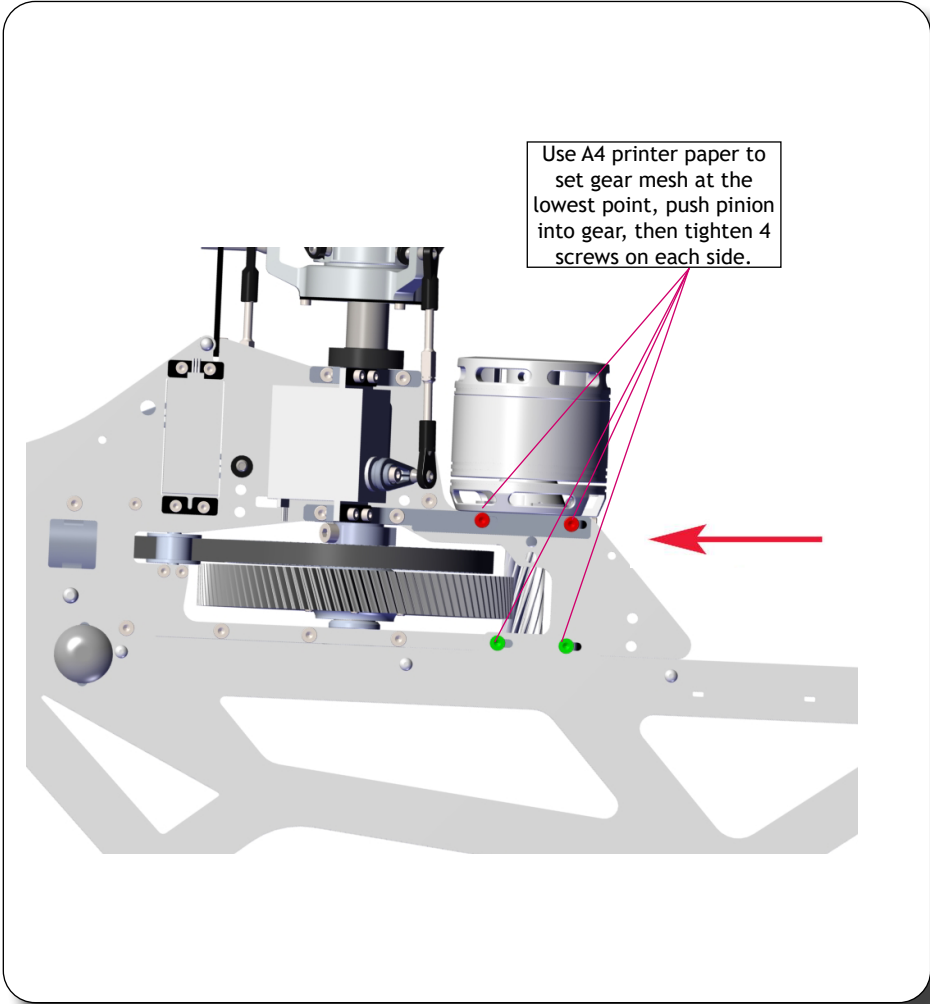
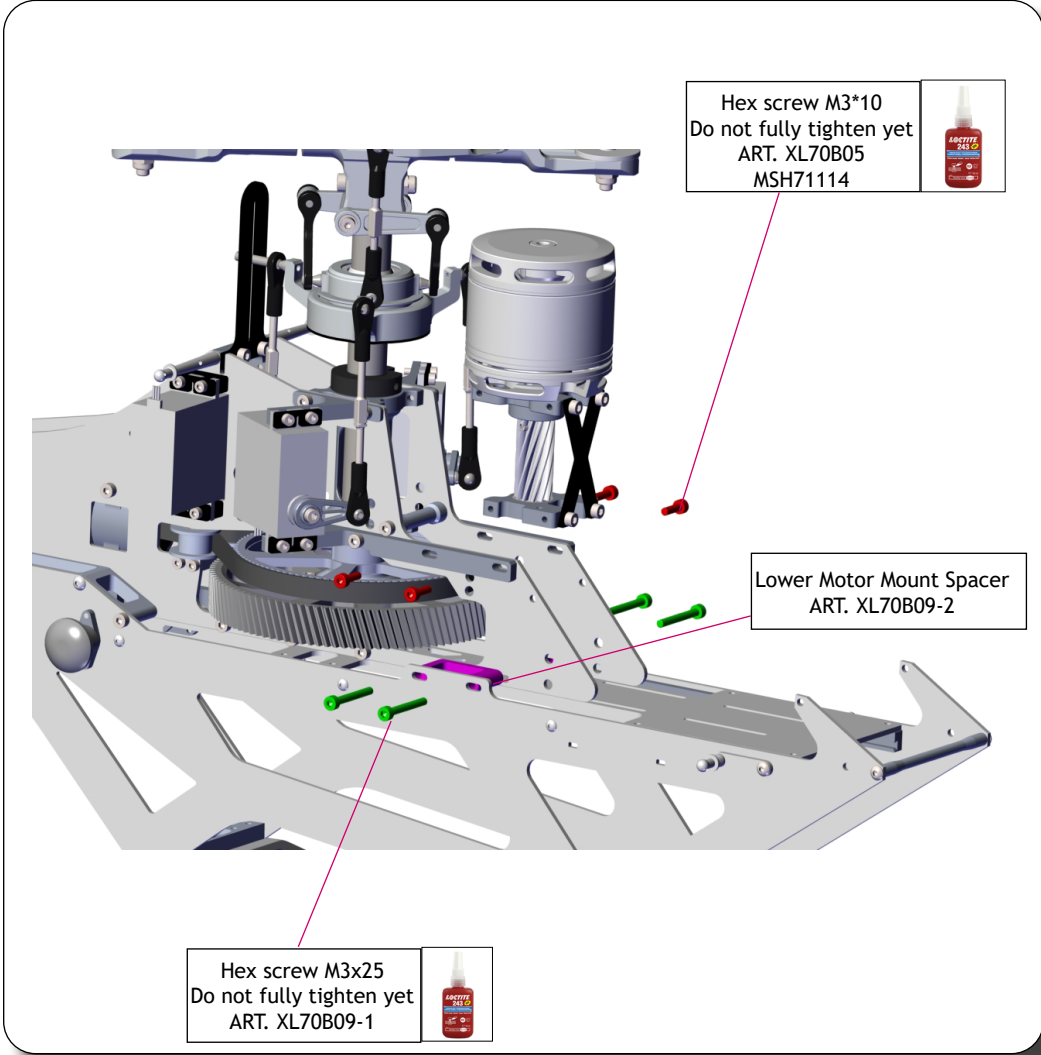
Lower Motor Mount
ART. XL70B07

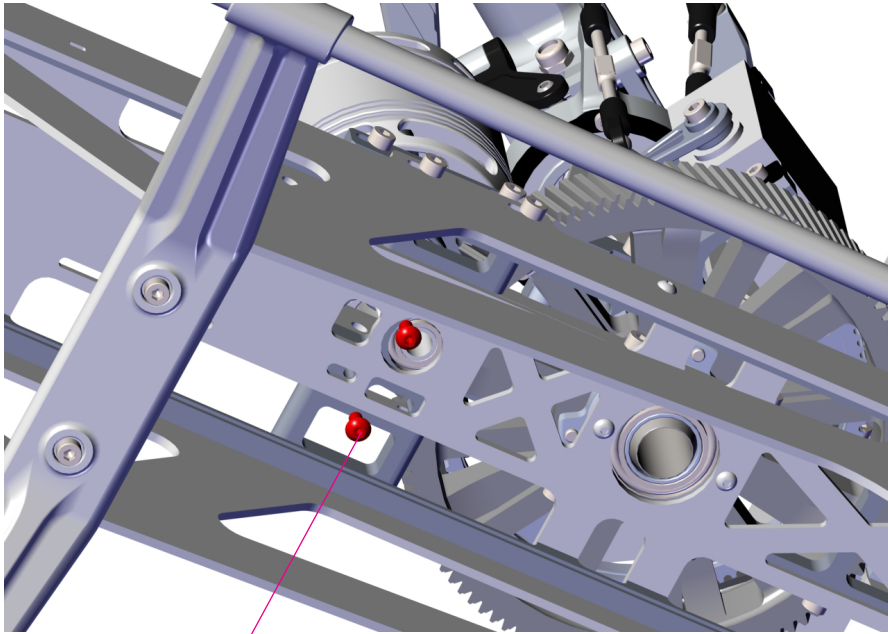
Pay attention to the bearing
direction (Pre-assembled)

Hex screw M3x6
ART. MSH71108

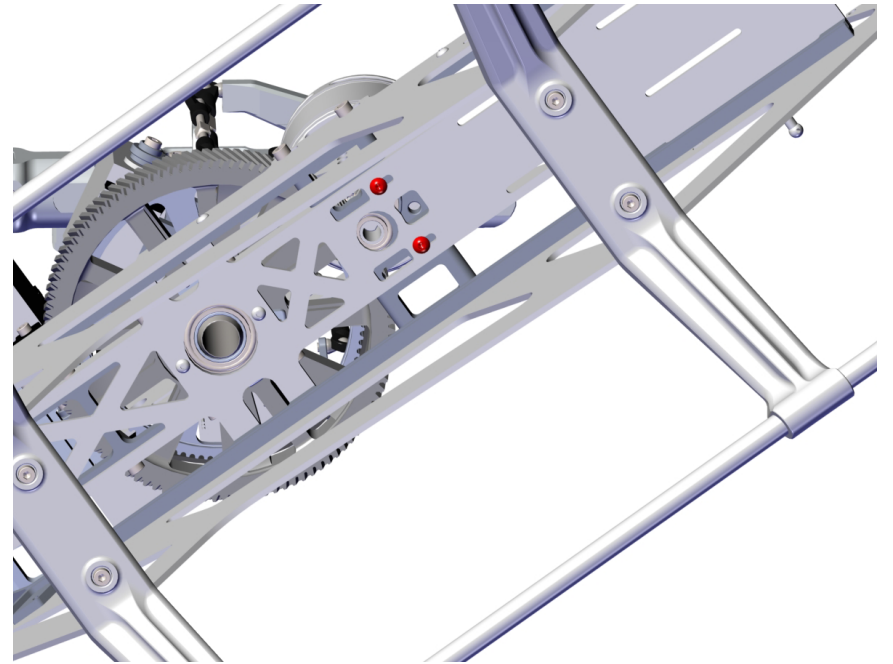
X Carbon Fiber Brace
ART. XL70B08

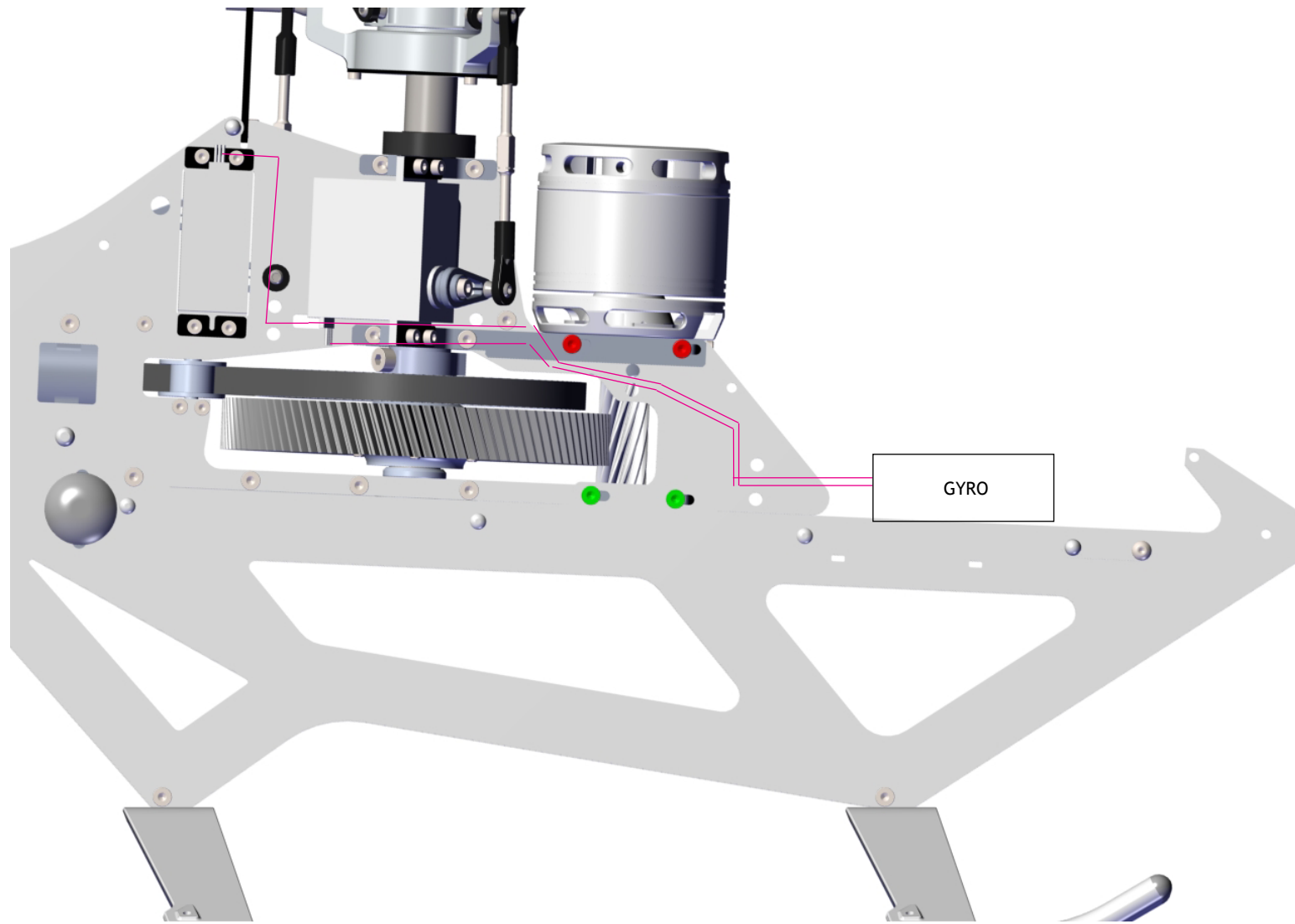


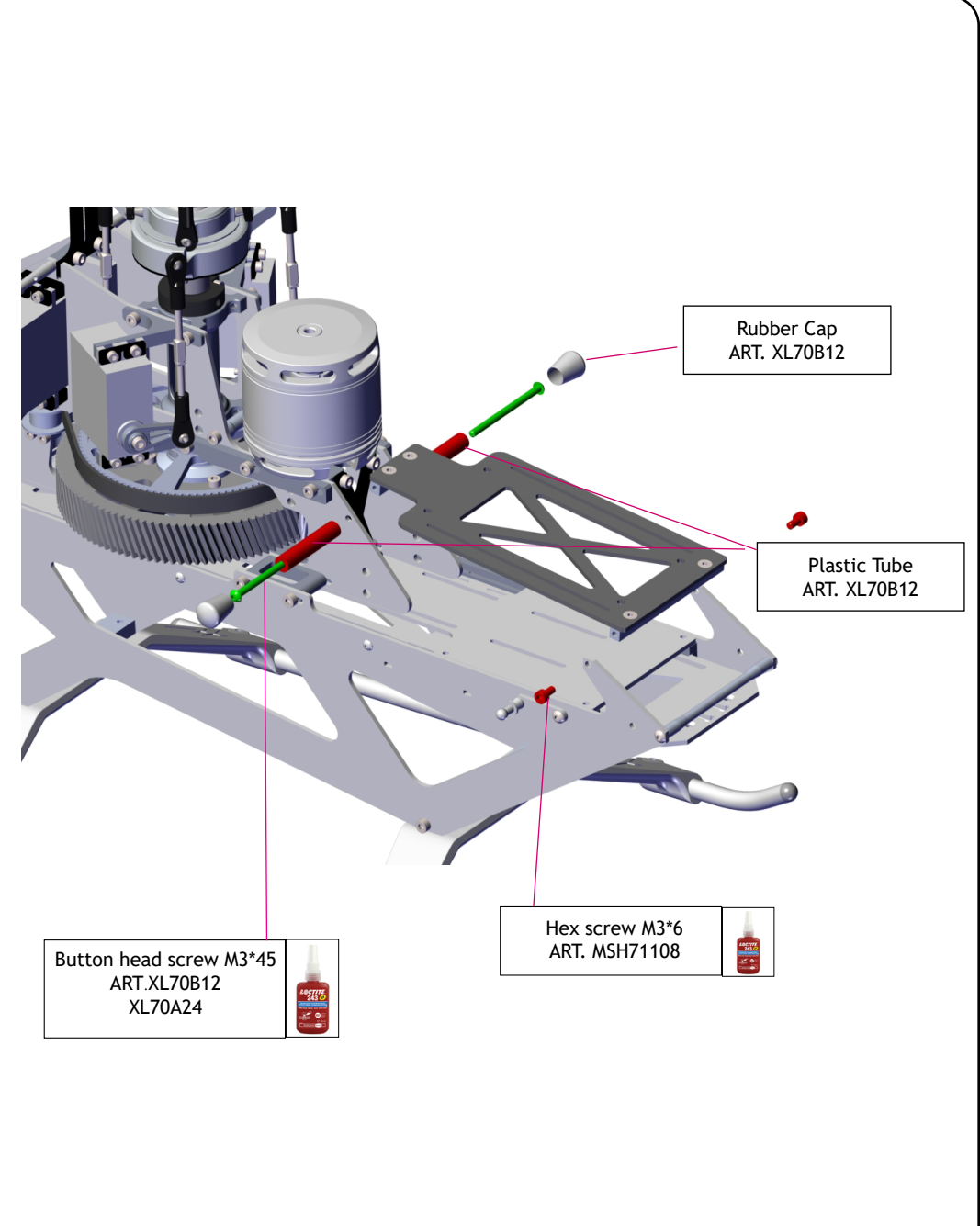
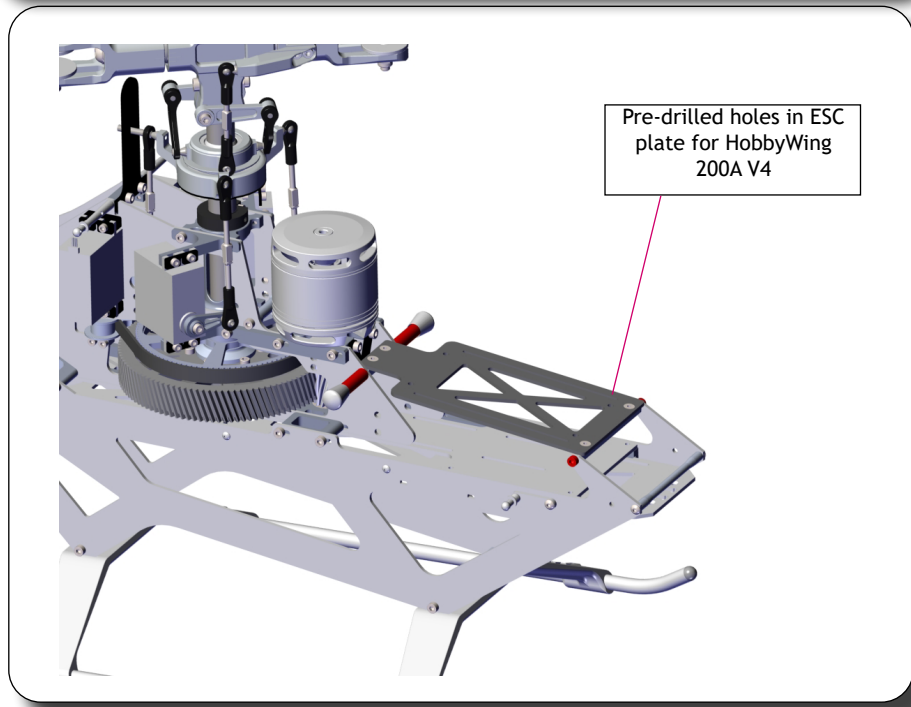
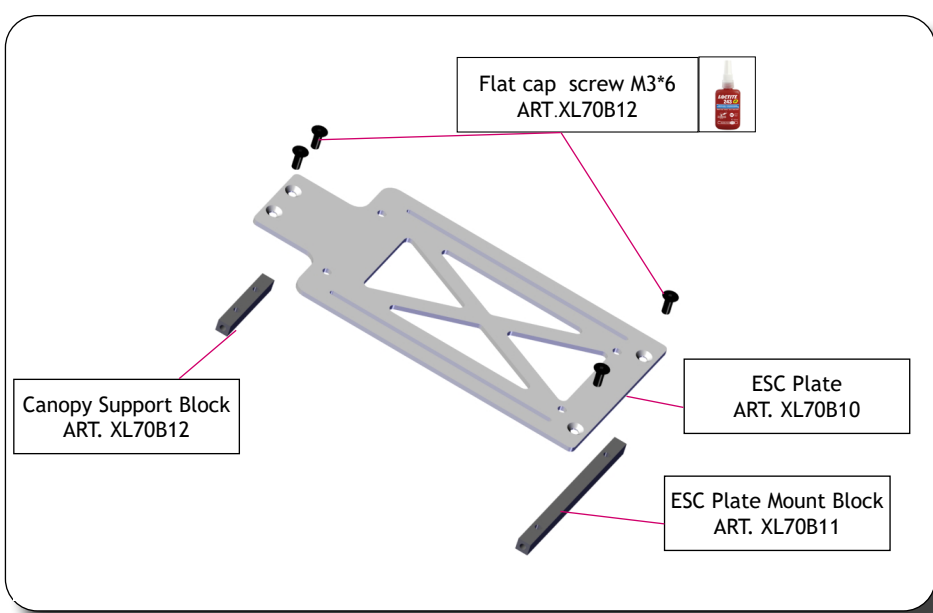




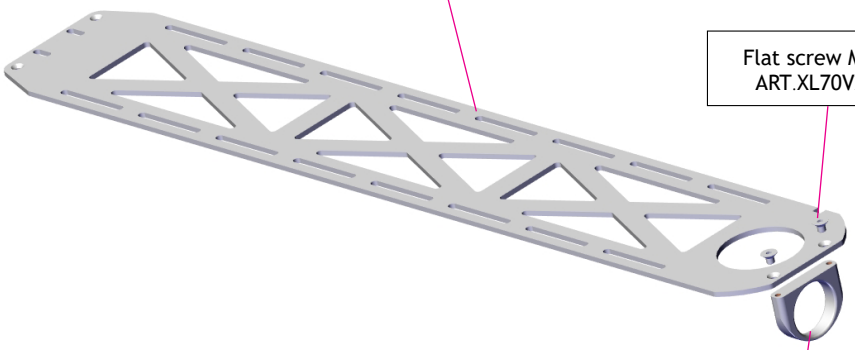
Button head screw
M3*6
ART.XL70A21







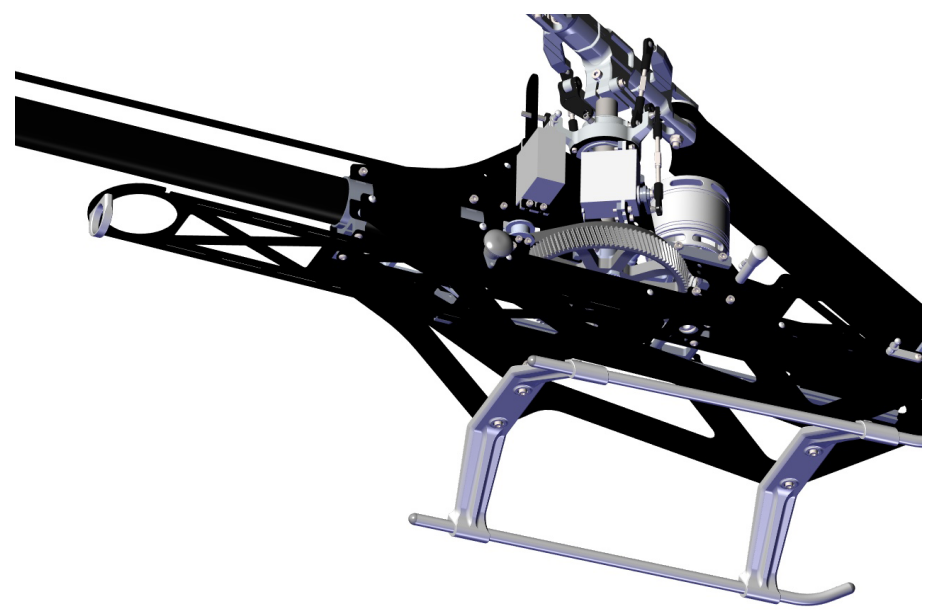
Battery Tray V2
ART. XL70V2B13

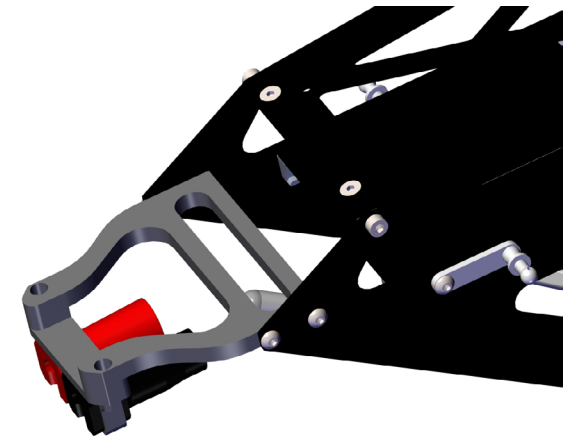
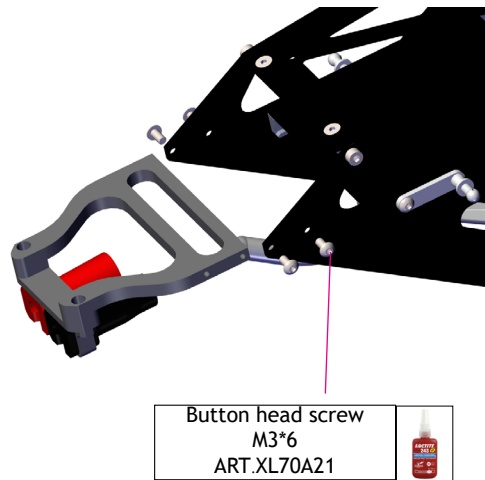
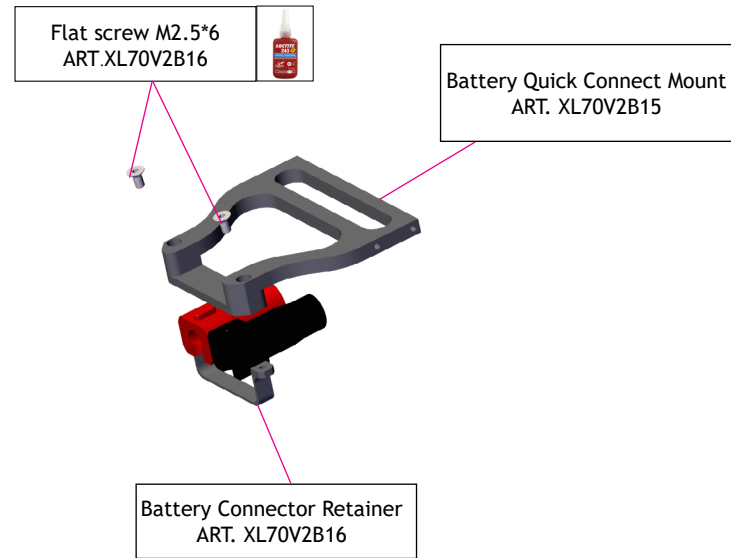
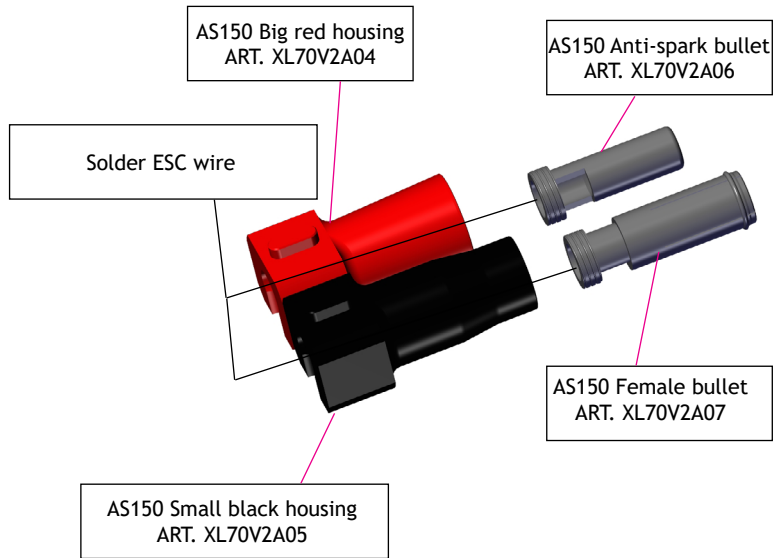


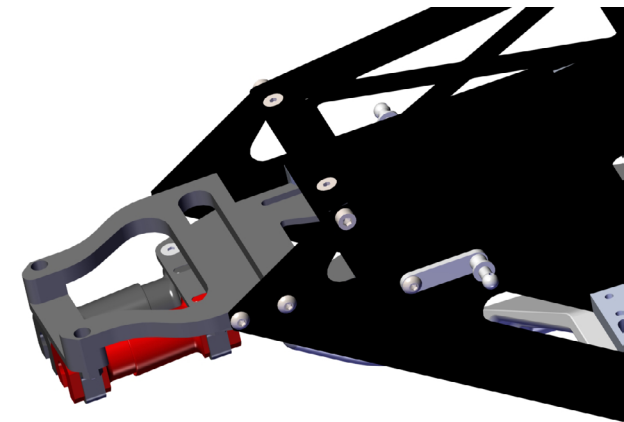
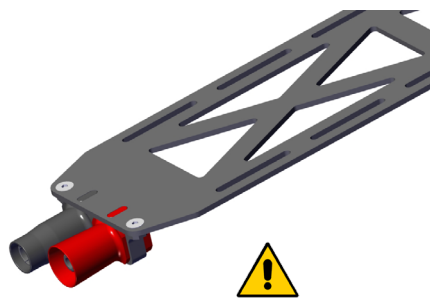
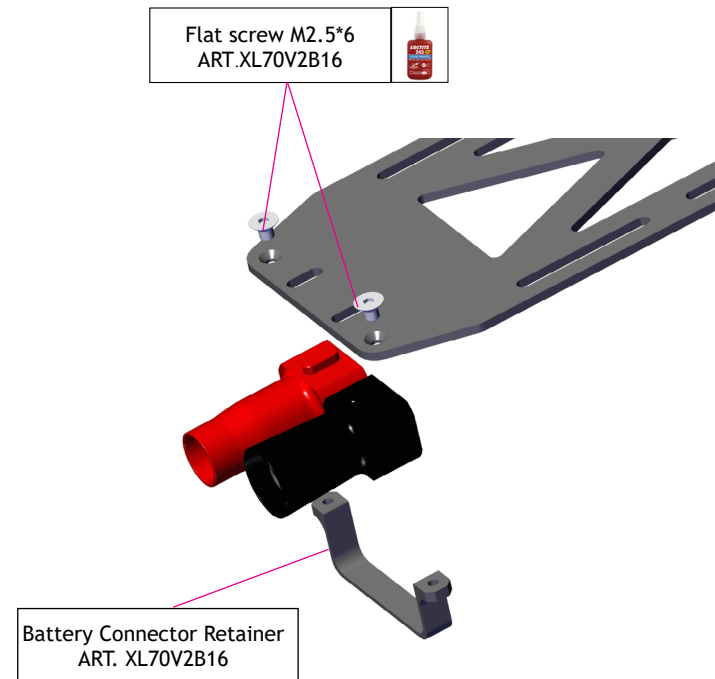
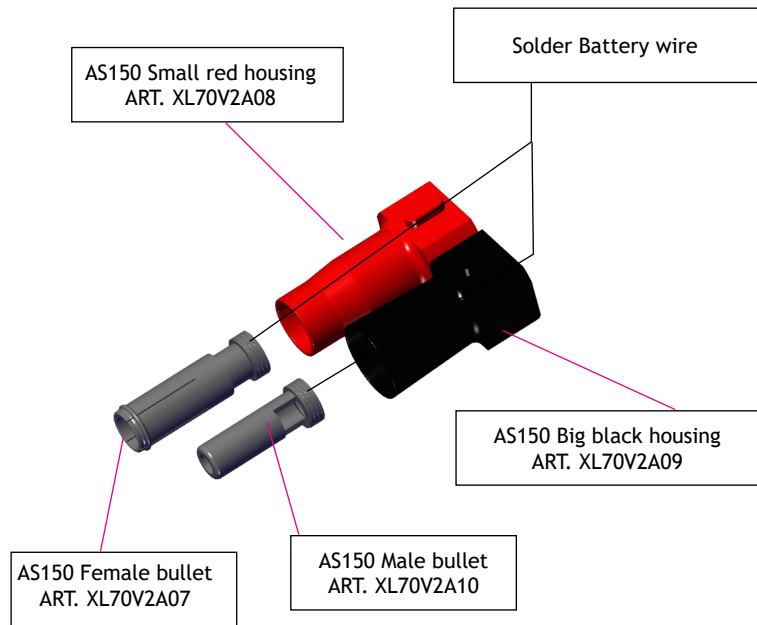
Flat screw M2.5*6
ART.XL70V2B13

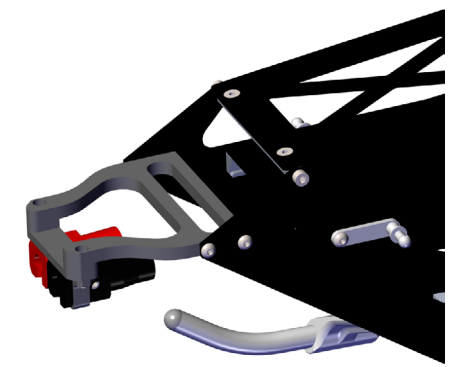
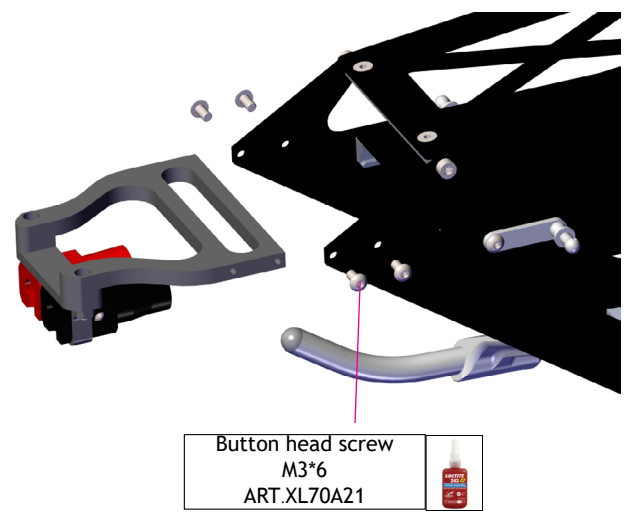
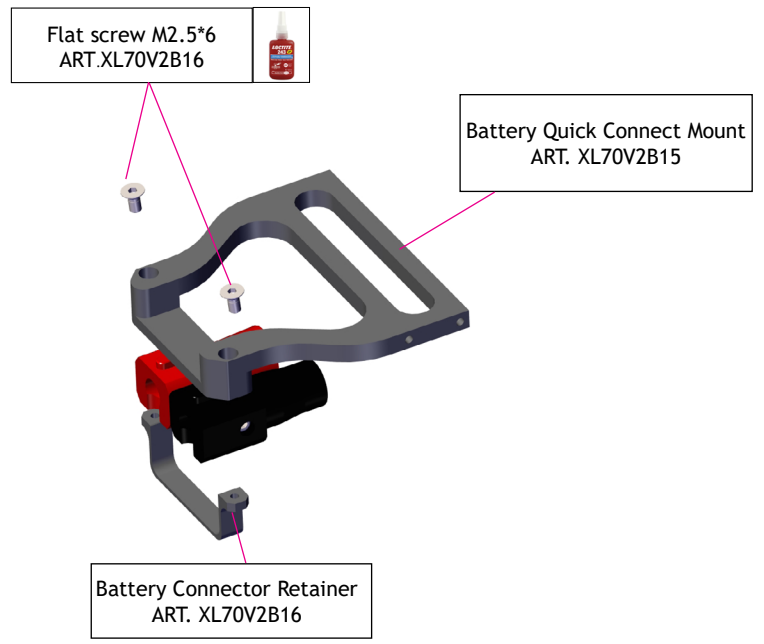
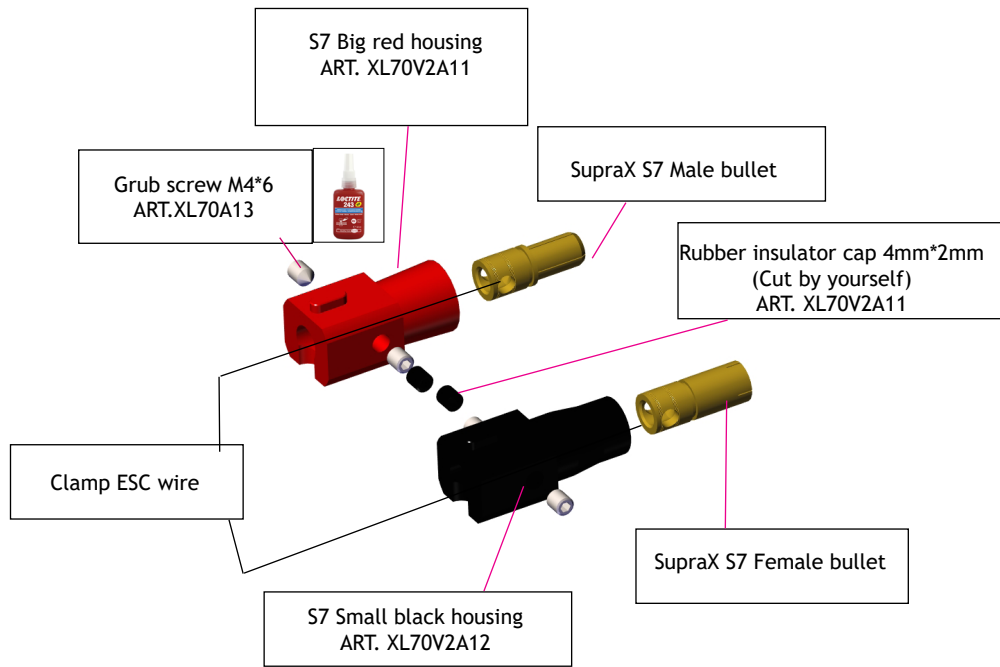


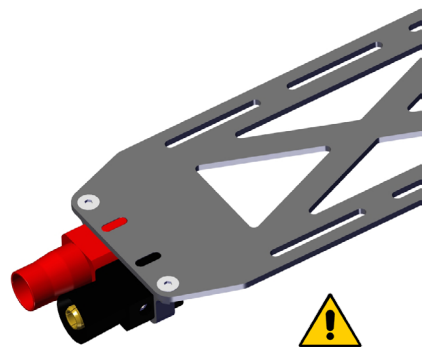
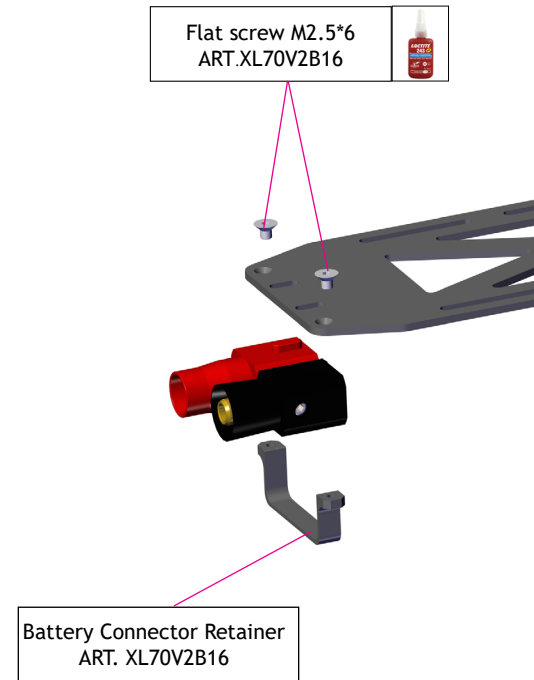
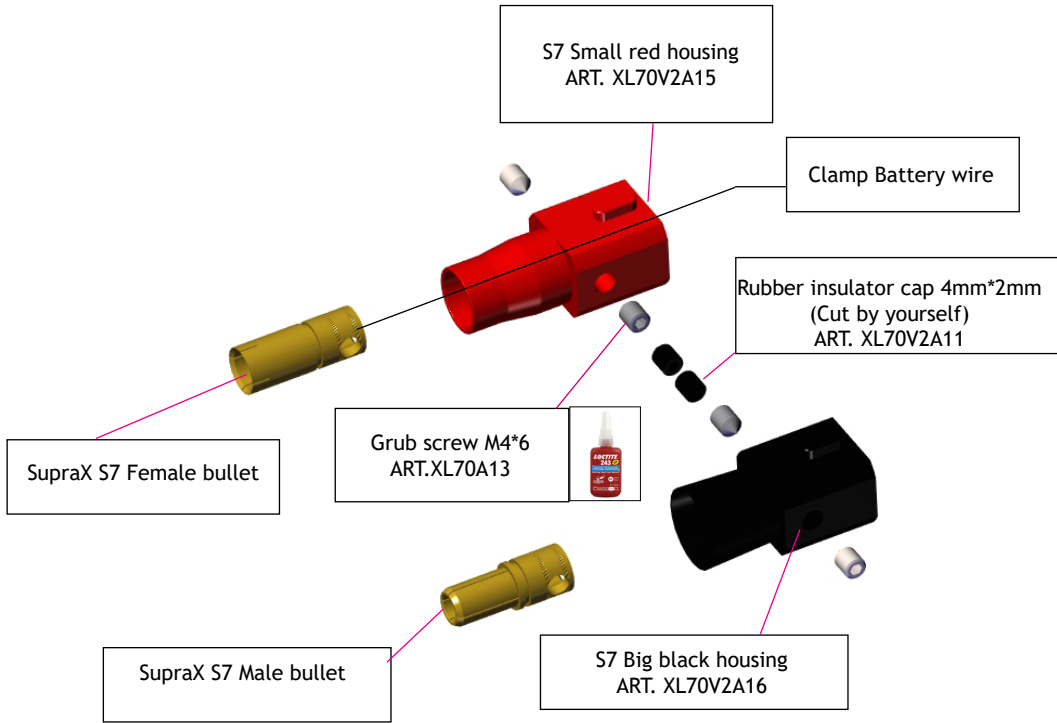
Battery Tray Puller
ART. XL70V2B14



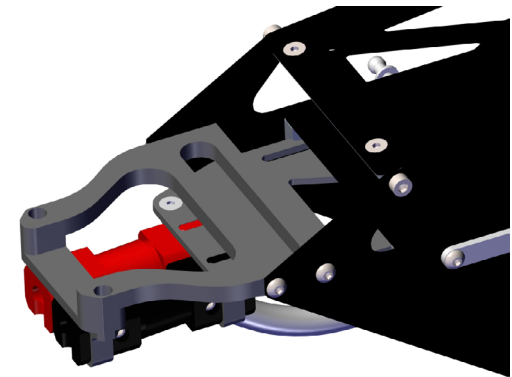








Make sure the connectors are fully mated before flying



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instagram:xlpowerrc

