



Length Without Main Blades:	1383mm
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:	18mm
Battery Compartment Size:	380mm*68mm*70mm

# 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:


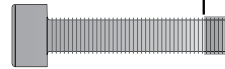

- ALWAYS check radio control system for proper operation before operating the model.
- ALWAYS check radio control system power levels before operating the model. Flying with low transmitter or receiver battery may cause loss of control.
- ALWAYS pay attention to your surroundings, and look out for others 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!

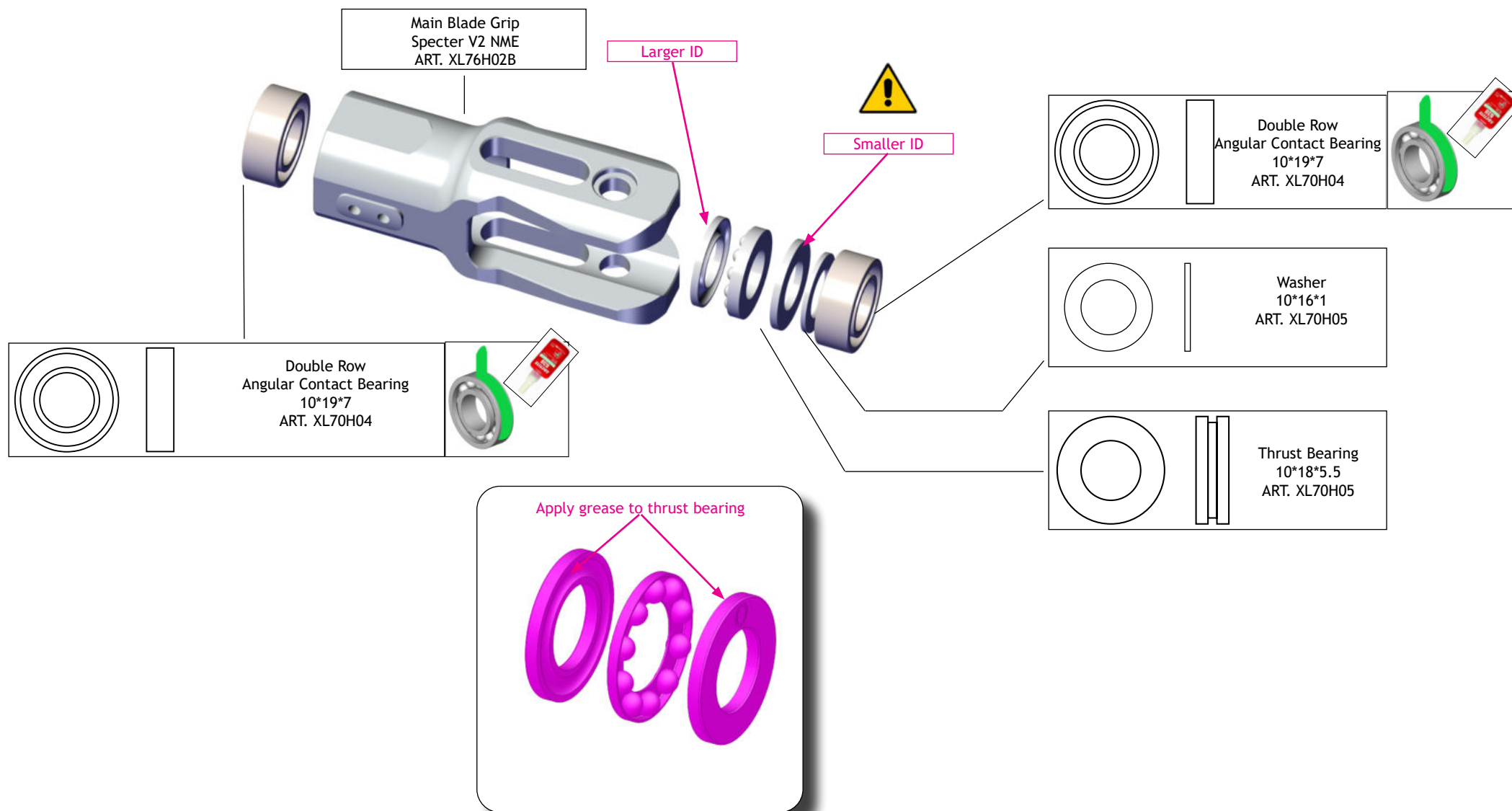
# Equipment Required for Assembly



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

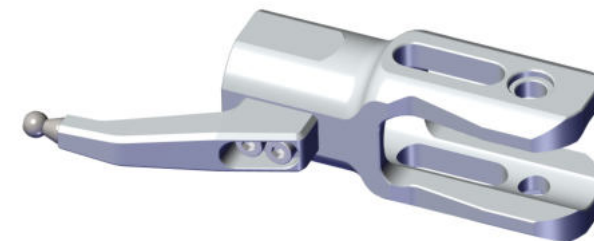
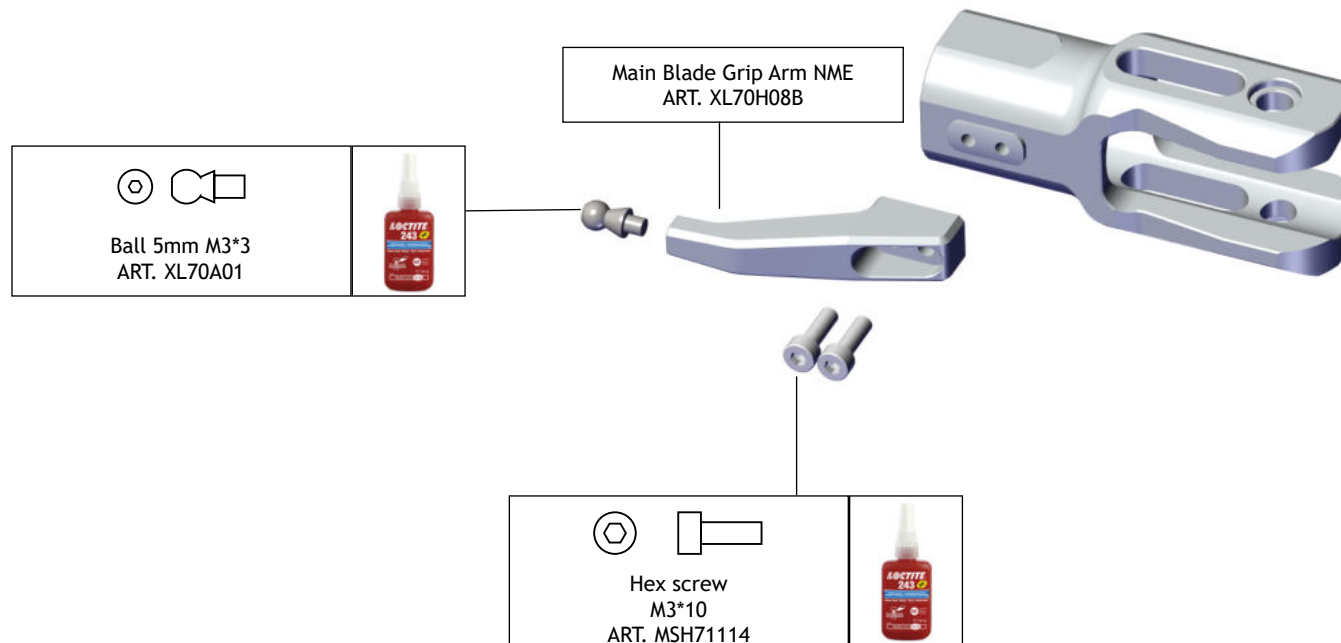


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight





Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



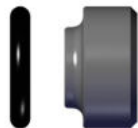


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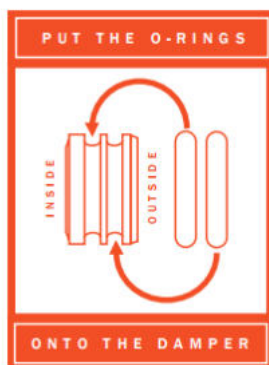
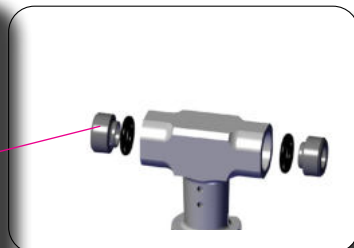
## Head Dampeners



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)



Apply silicon grease on the damper and Spindle



Main Rotor Hub NME  
ART. XL70H01-1B

Washer  
10\*16\*1  
ART. XL70H05



Screw M6\*12  
ART.XL70H07

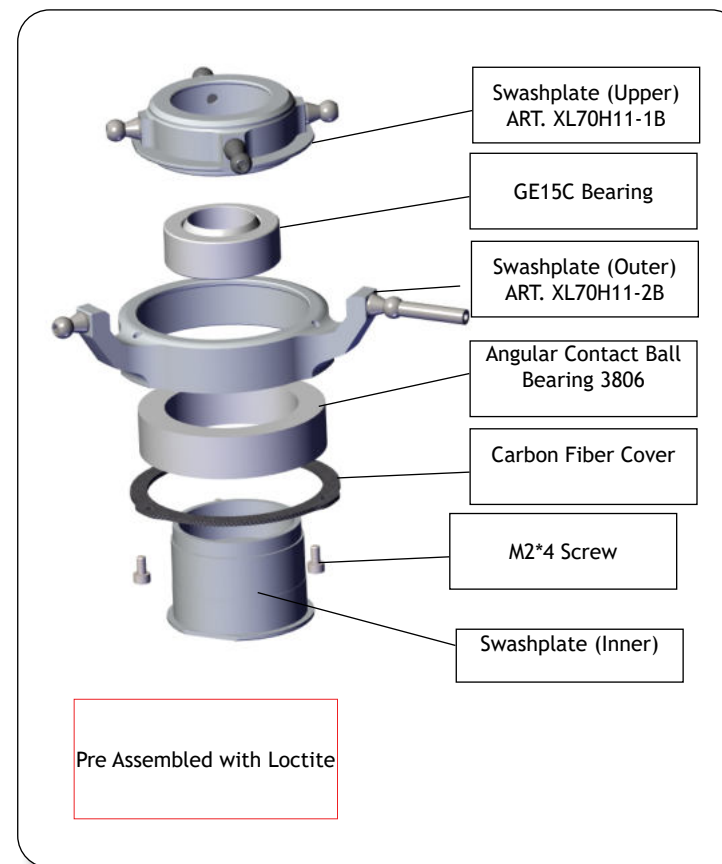
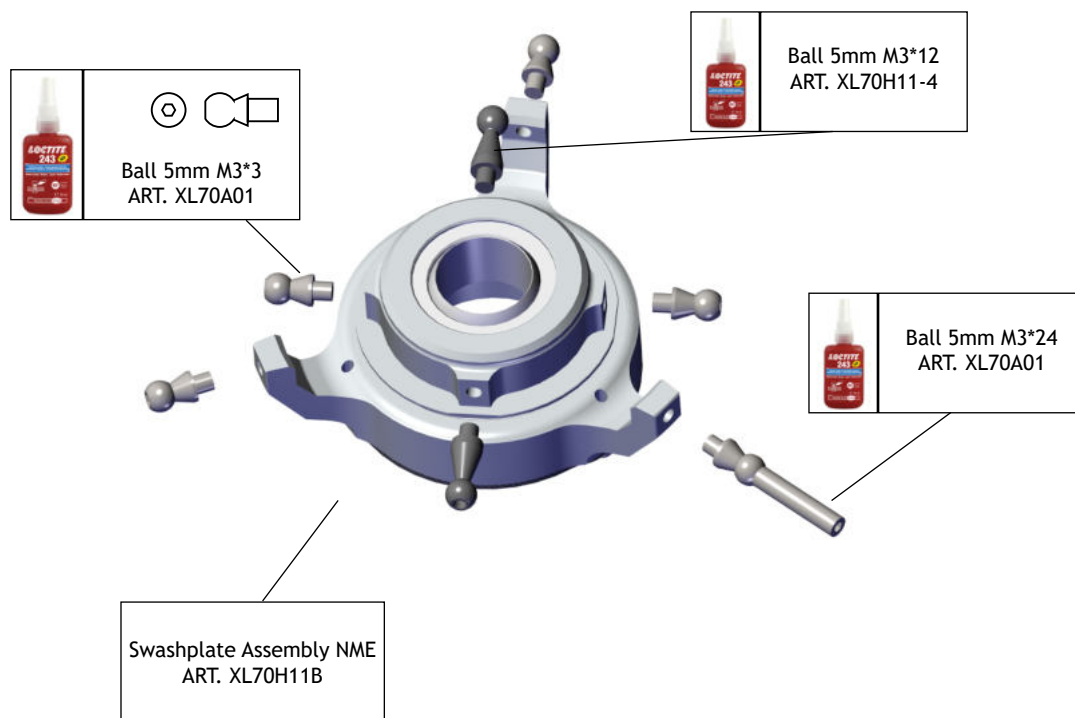
M6 Washer (keep it in the center )  
ART. XL70H07

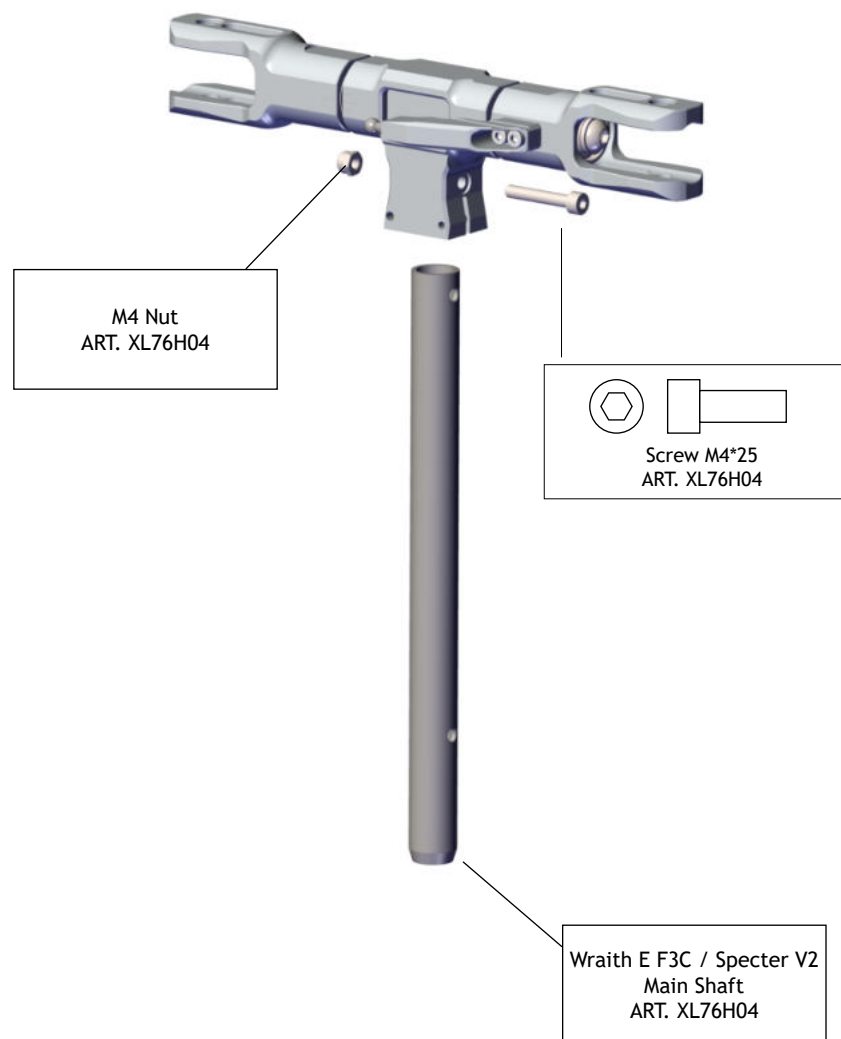
Spindle  
ART. XL70H07





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Spacer 3\*5\*0.5  
ART. XL70H09B

Ball Bearing  
3\*7\*3  
ART. XL52A12  
ART. XL70H09B



Pin 3\*14  
ART. XL70H09B

Control arm NME  
ART. XL70H09B

Radius Arm  
ART. XL70H09  
ART. XL70H10

Screw M3\*25  
ART. XL70H09B

Spacer 3\*5\*0.5  
ART. XL70H09B

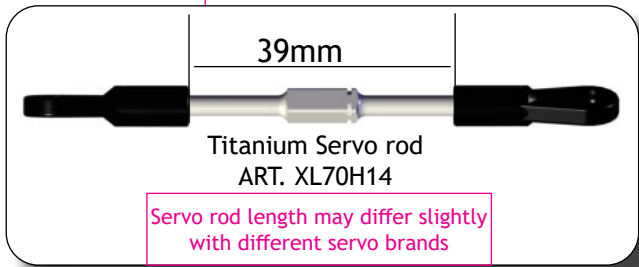
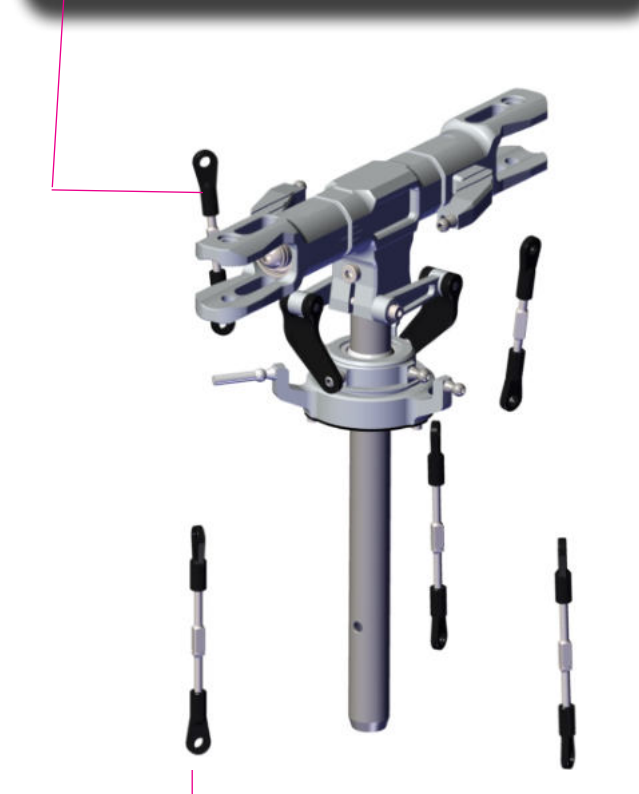
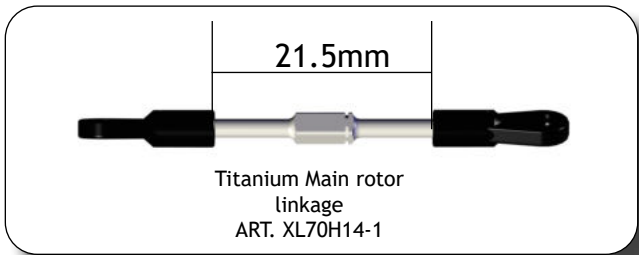
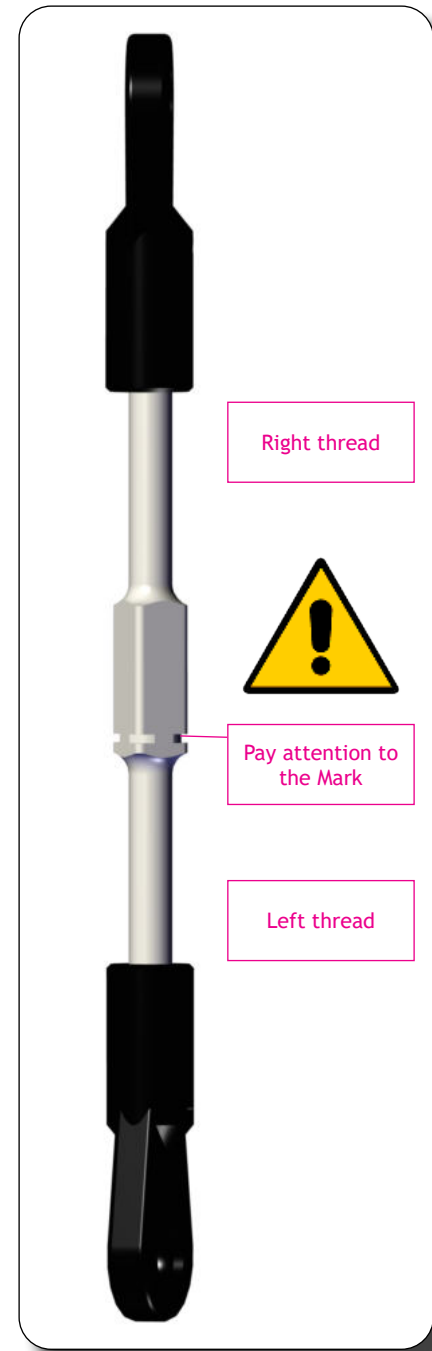
2X

Pre Assembled





Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight





Double Row  
Angular Contact  
Bearing  
15\*24\*7  
ART. XL70B02

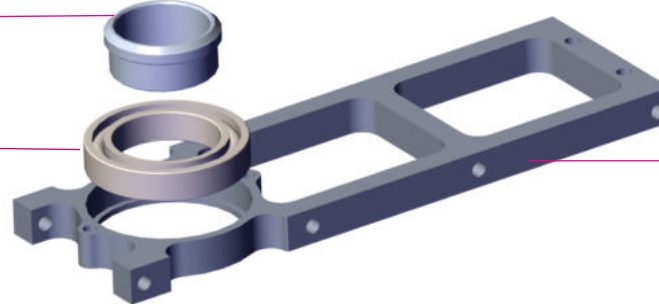


Main Shaft Bearing Block  
ART. XL70B01

Pre Assembled

Main Shaft Bearing Spacer  
ART. XL70V2B02

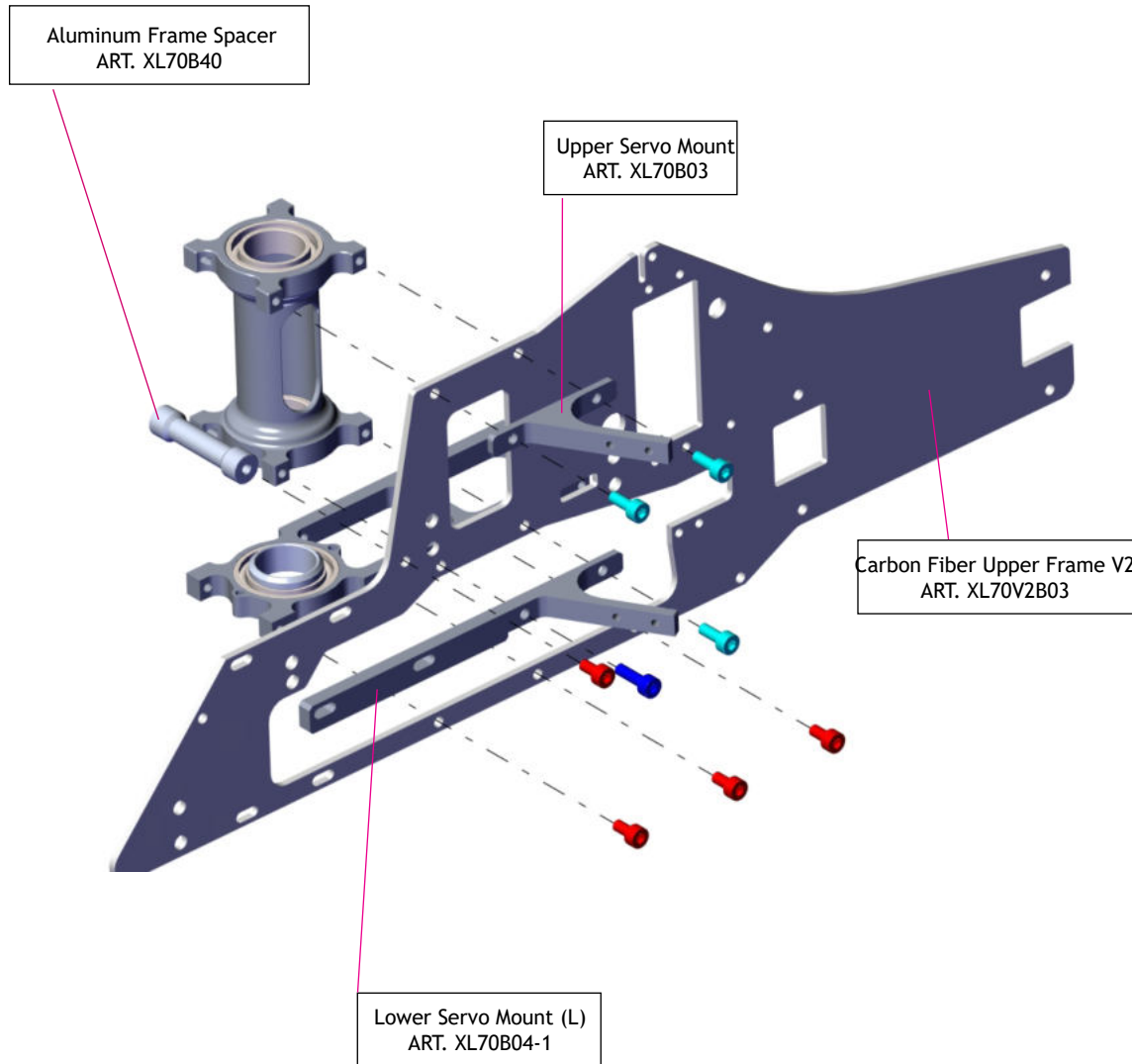
Bearing  
17\*26\*5  
ART. XL70V2A01










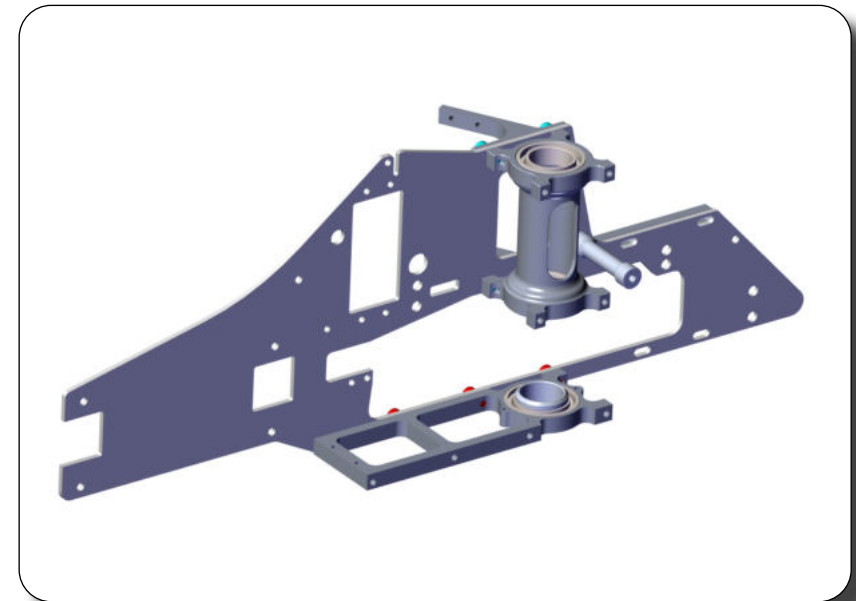
Third Bearing Block V2  
ART. XL70V2B01



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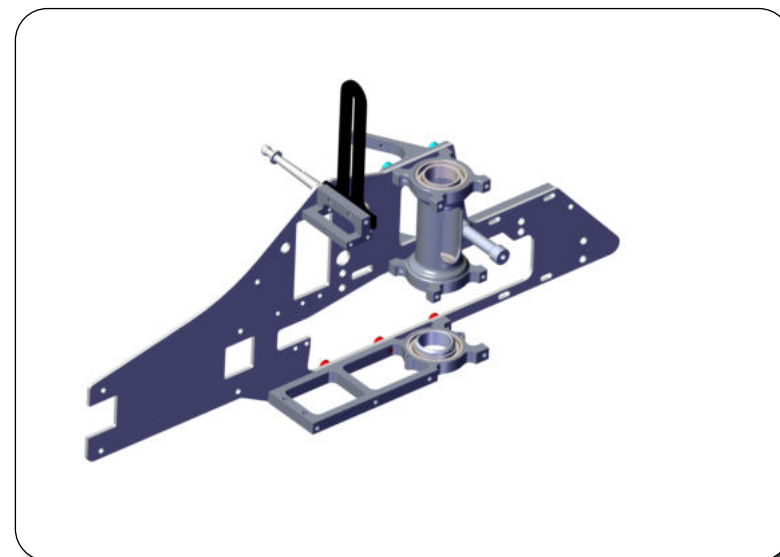
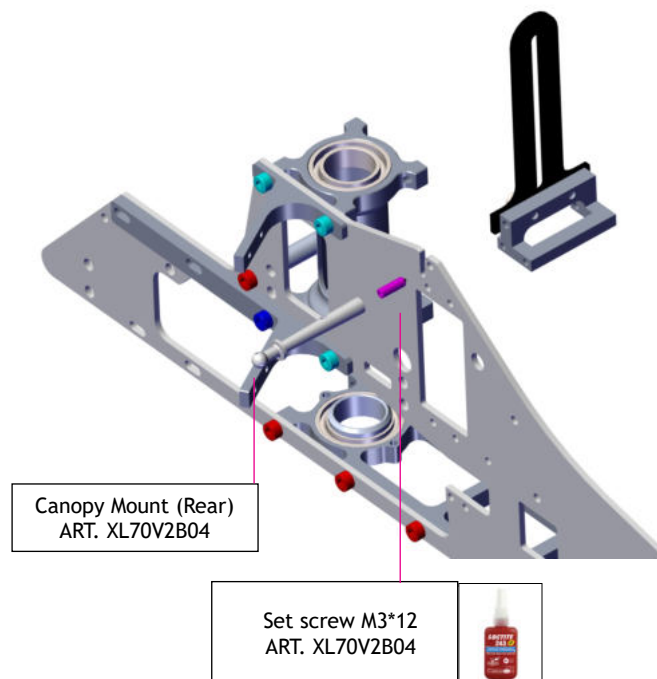
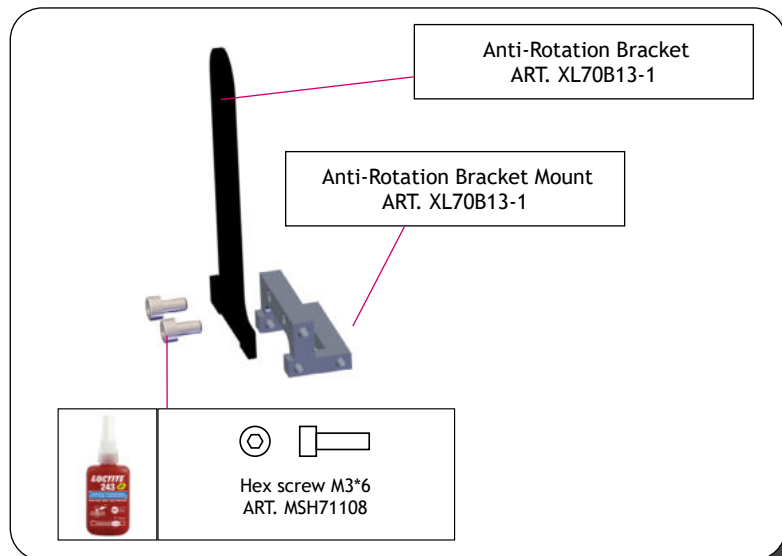


			Hex screw M3*6 (Red in picture) ART. MSH71108
			Hex screw M3*8 (Tiffany Blue in picture) ART. MSH71109
			Hex screw M3*10 (Blue in picture) ART. MSH71114





Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight





Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



Do Not Install This Silver Screw Yet

Flat screw M3\*4  
ART. XL70V2B05



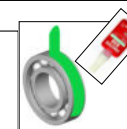
Hex screw M2.5\*6  
ART. MSH71110



Front Belt Idler Mount (Upper)  
ART. XL70V2B06

Carbon Fiber Plate  
ART. XL70V2B07

Ball bearing  
3x9x4  
ART. XL70A20



Belt Front Idler V2  
ART. XL70V2B06

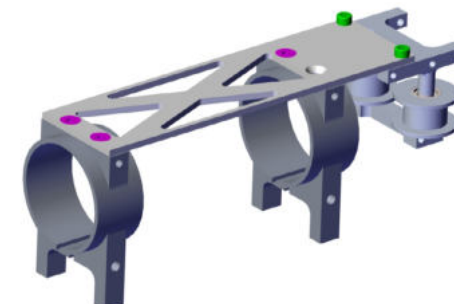
3\*17 Pin  
ART. XL70V2B06

Front Belt Idler Mount (Lower)  
ART. XL70V2B06

Tail Boom Clamp V2  
ART. XL70V2B05



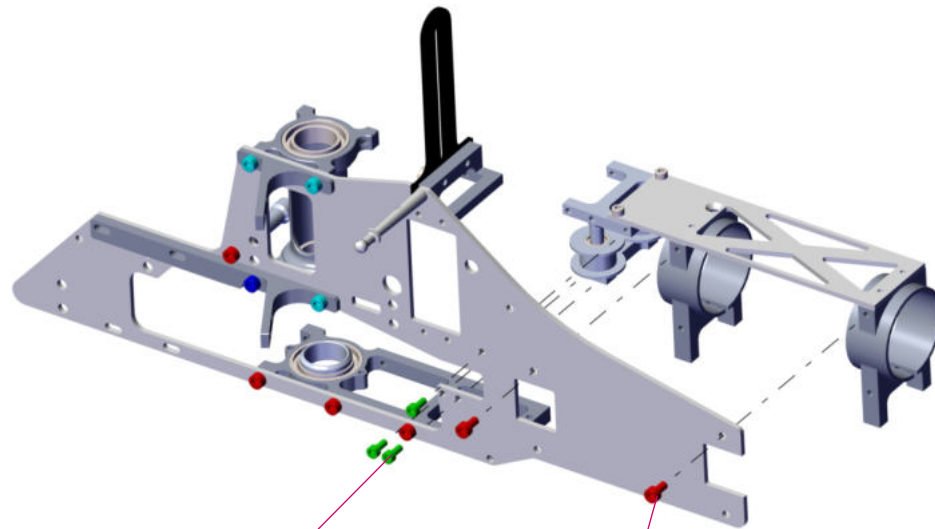
Unthreaded Hole Faces Right





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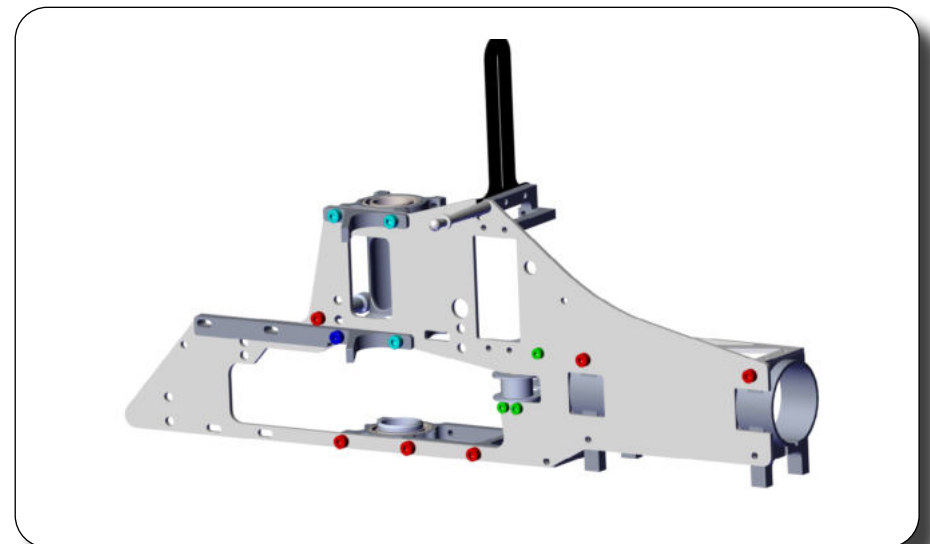
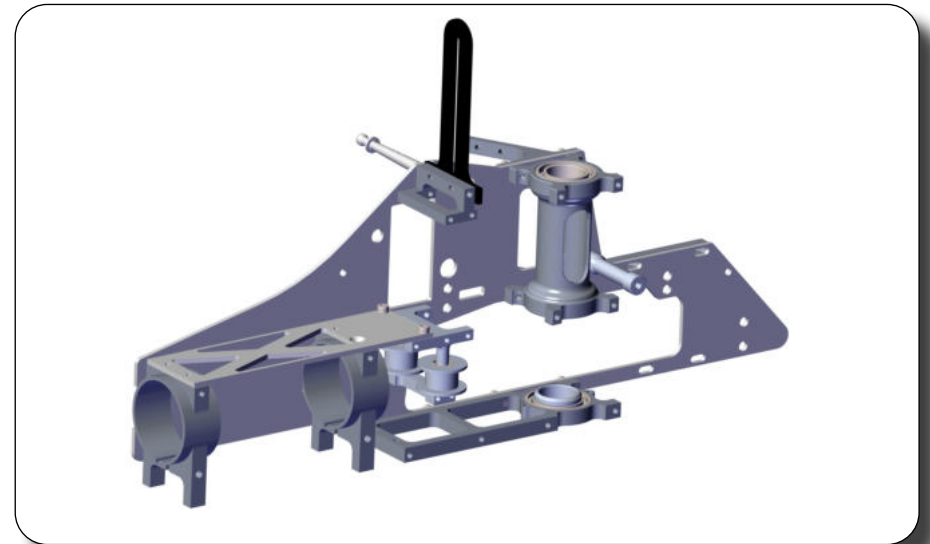
**SPECTER 700V2**



Hex screw M2.5\*6  
ART. MSH71110



Hex screw M3\*6  
ART. MSH71108

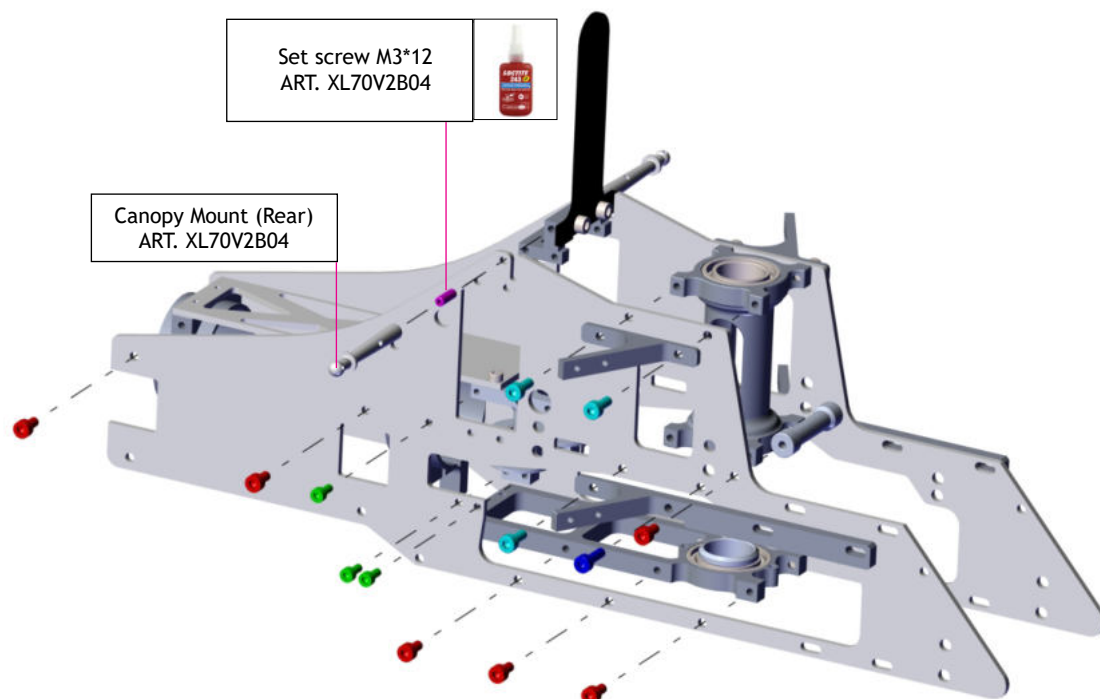











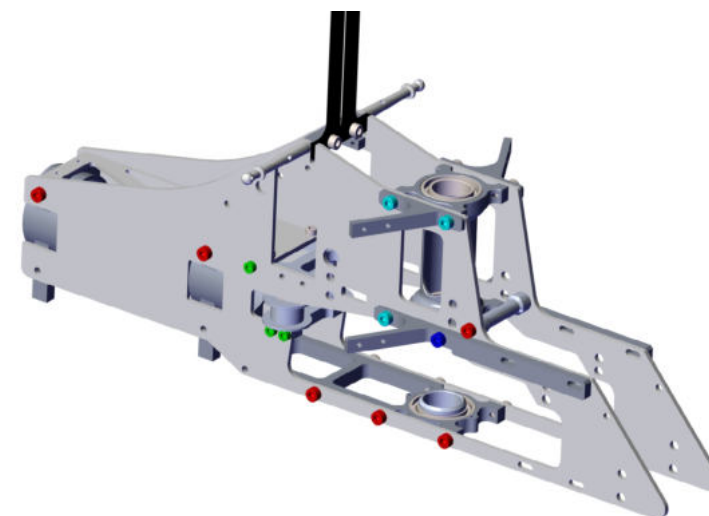


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# SPECTER 700V2



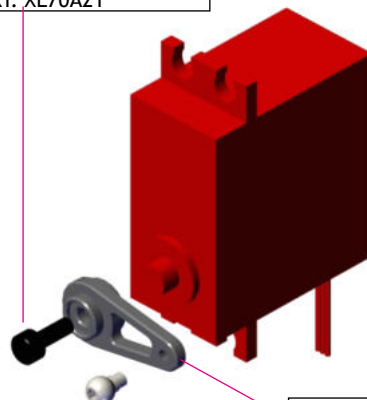
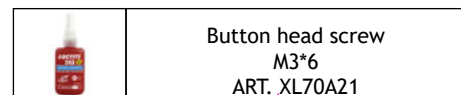
	  Hex screw M3*6 (Red in picture) ART. MSH71108
	  Hex screw M3*8 (Tiffany Blue in picture) ART. MSH71109
	  Hex screw M3*10 (Blue in picture) ART. MSH71114
	Hex screw M2.5*6 (Green in picture) ART. MSH71110



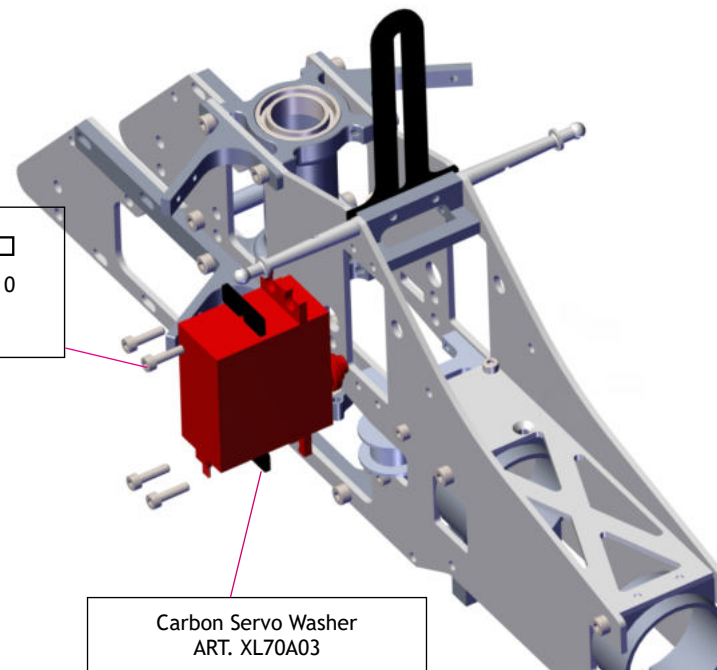




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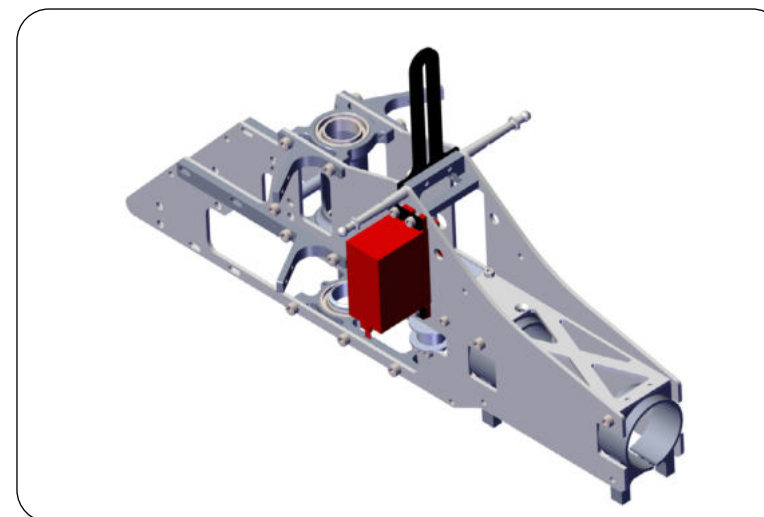
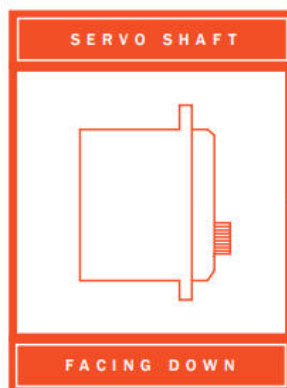
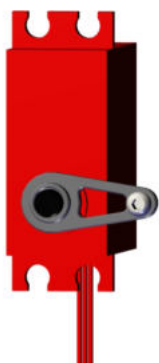
Hex Screw M2.5\*10  
ART. MSH71103  
XL70A03



Carbon Servo Washer  
ART. XL70A03

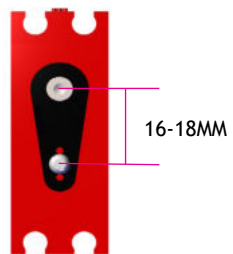
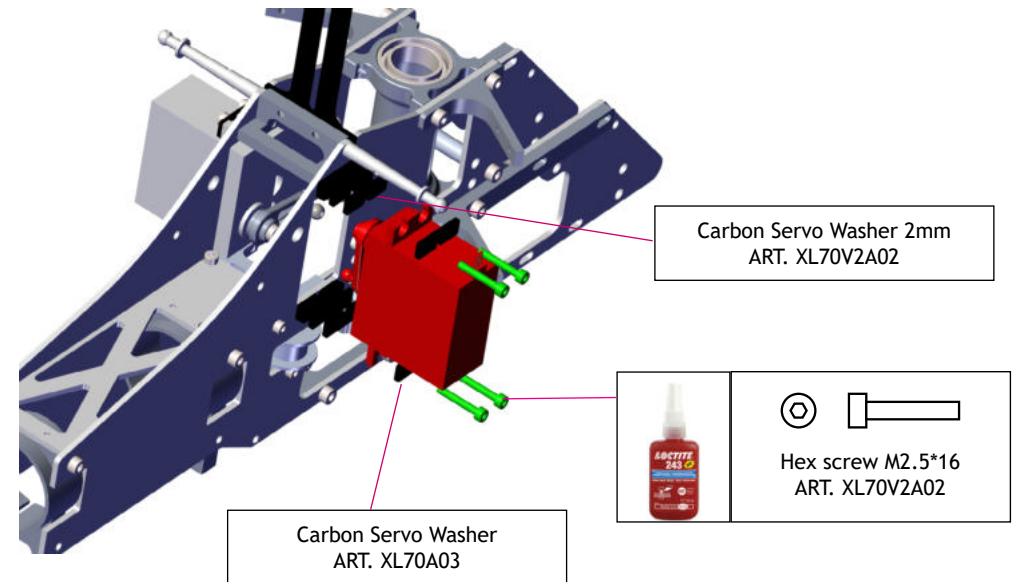
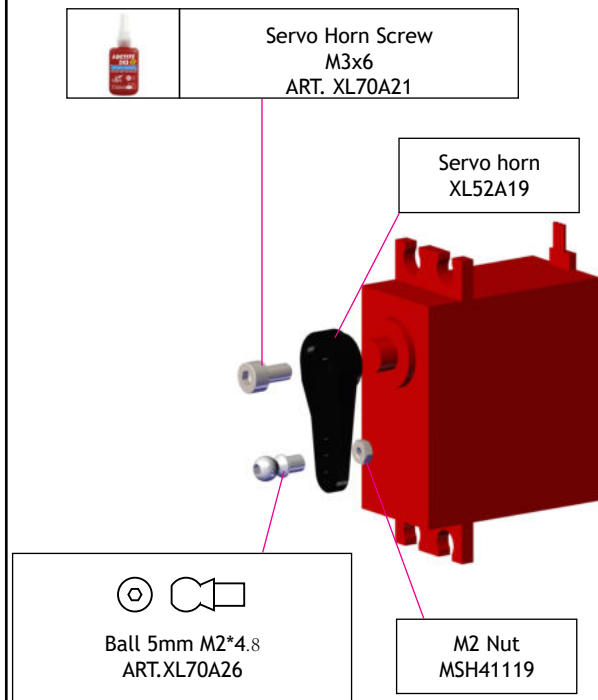


Ball 5mm M2.5\*3  
XL70A04





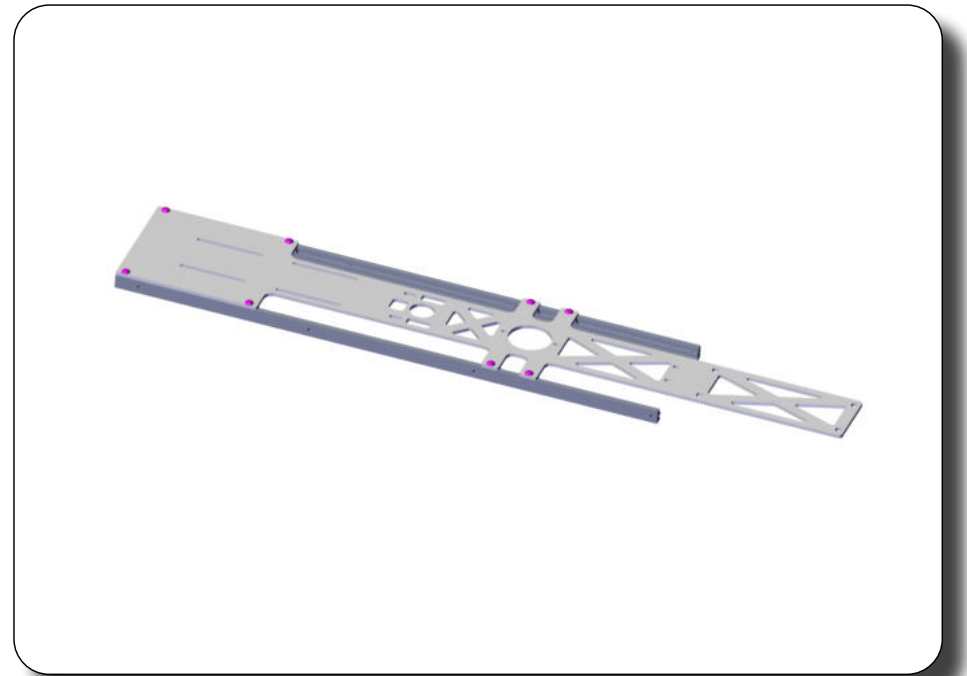
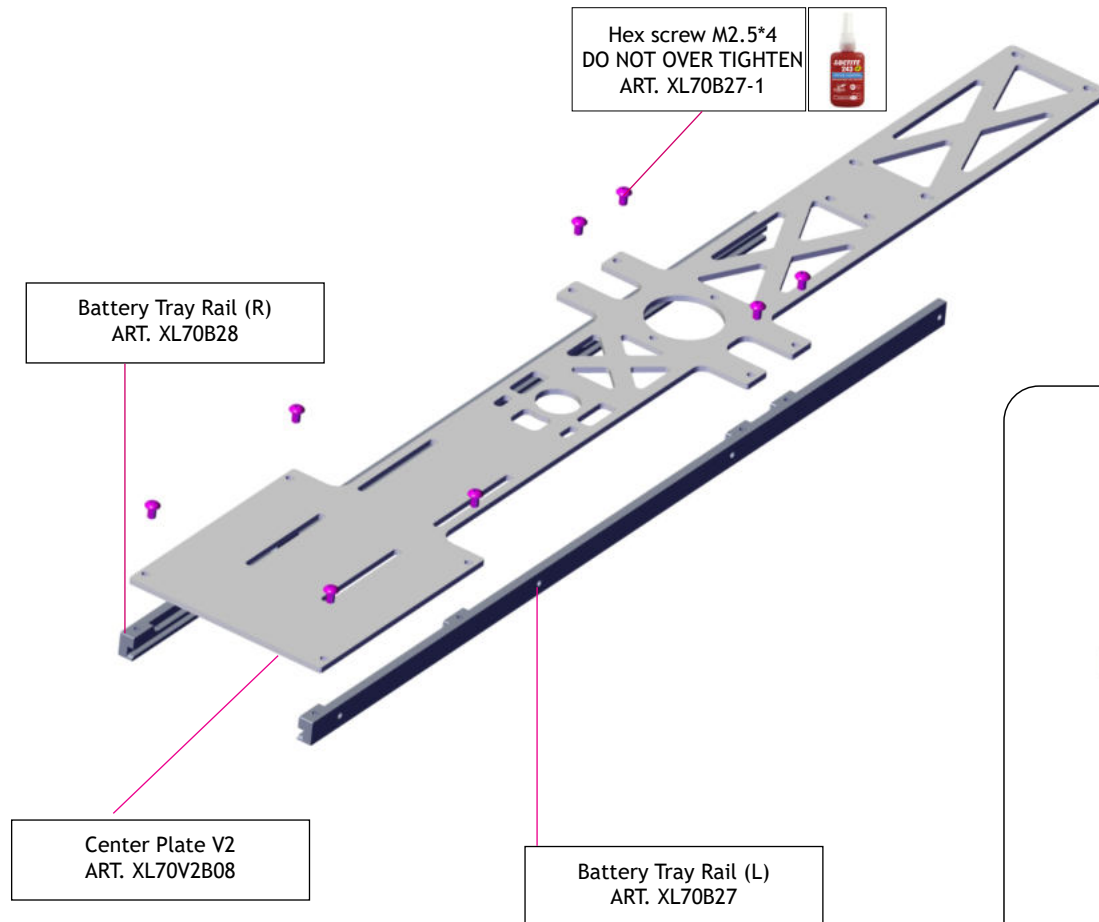
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



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.



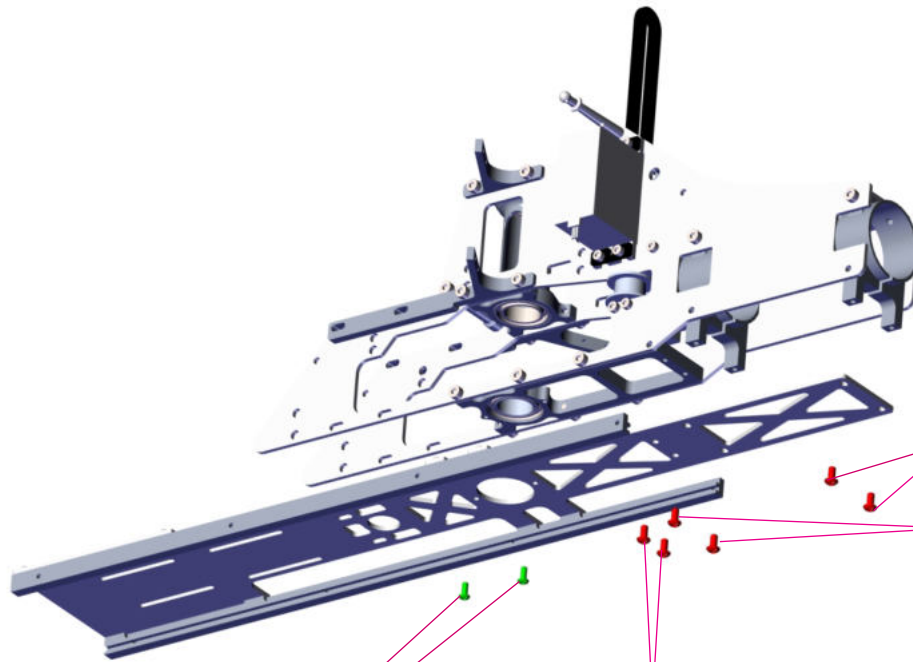
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# SPECTER 700 V2



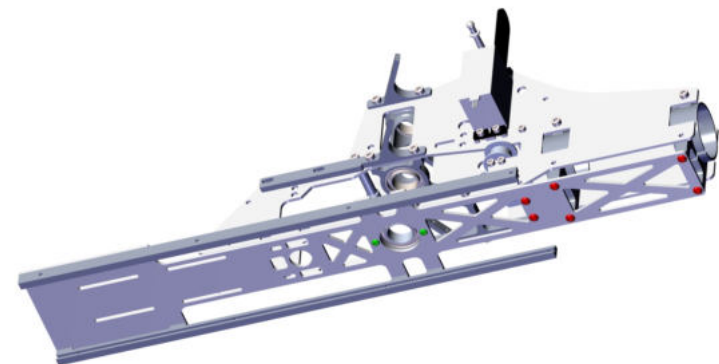
Hex screw M2.5\*6  
ART. MSH71110



Button head screw M3\*6  
Fully tighten

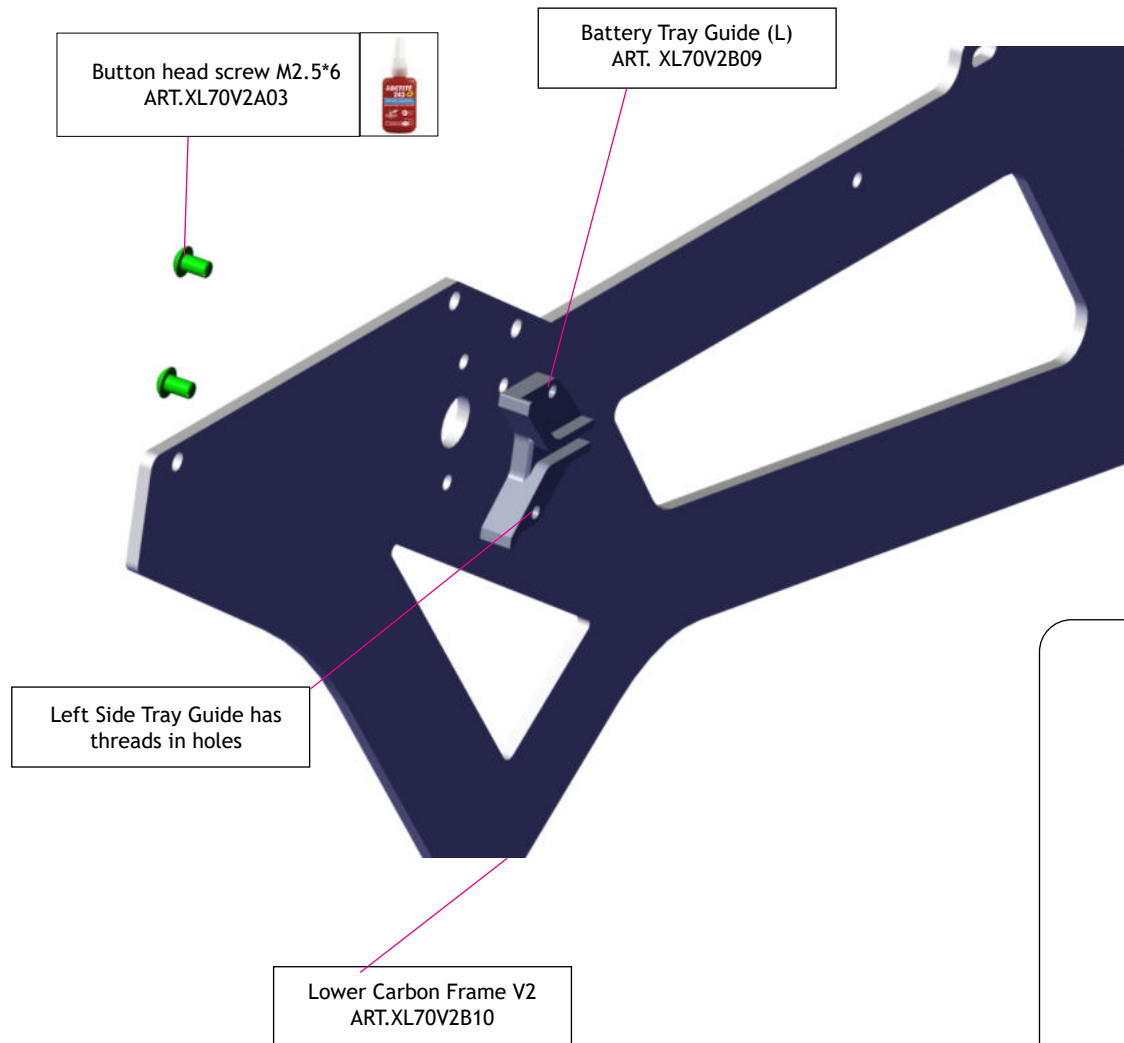


Button head screw M3\*6  
Do not tighten yet  
ART.XL70A21



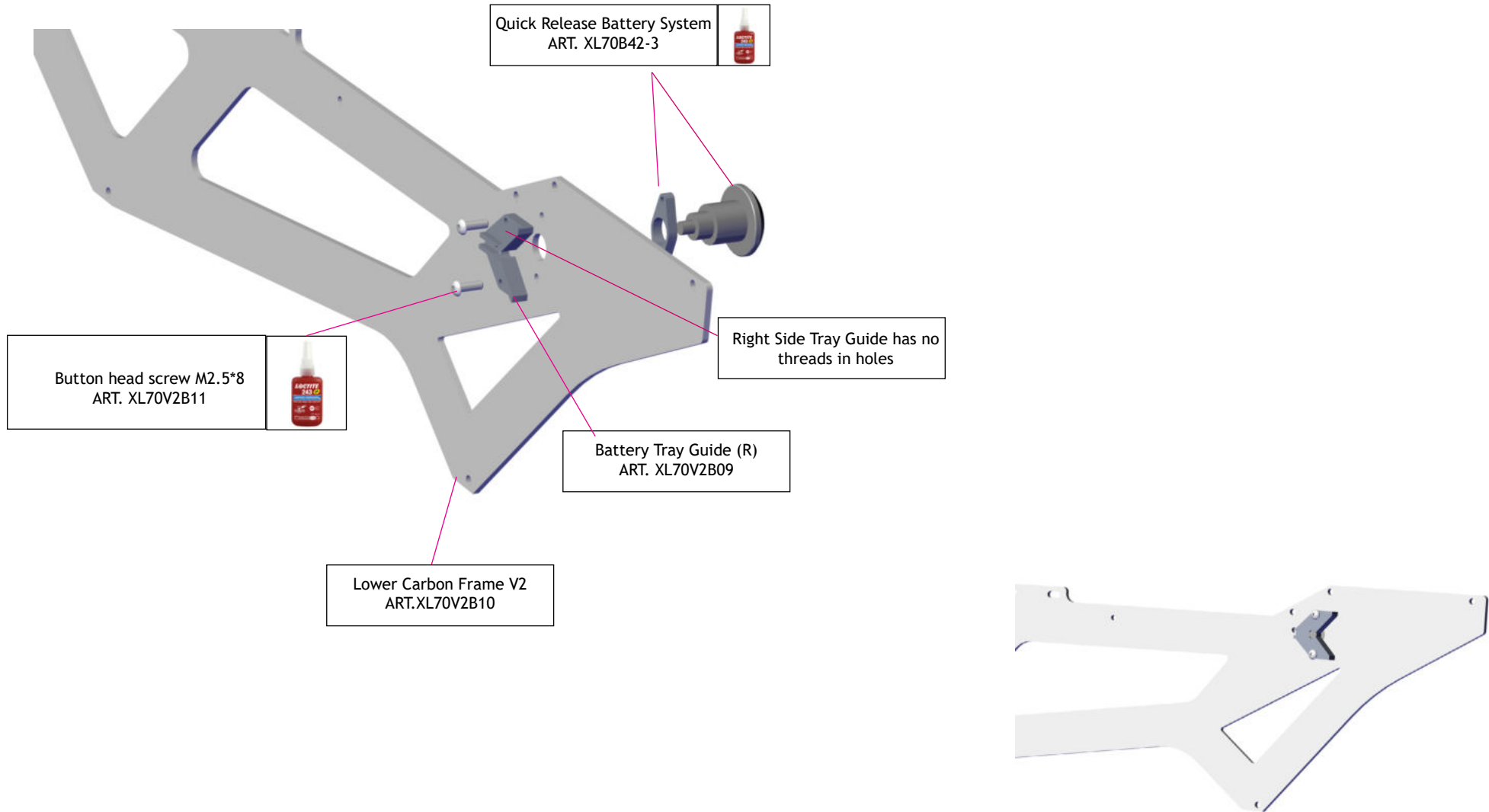


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight





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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



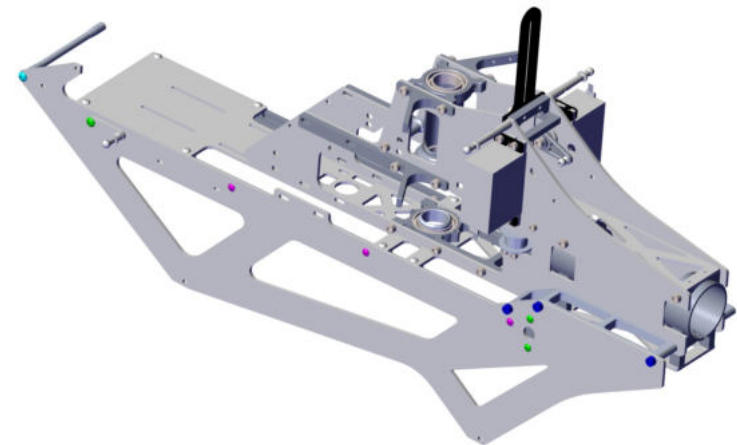
Hex screw M2.5\*4  
DO NOT OVERTIGHTEN  
ART. XL70B27-1



Hex screw M3\*25  
ART. XL70B09-1



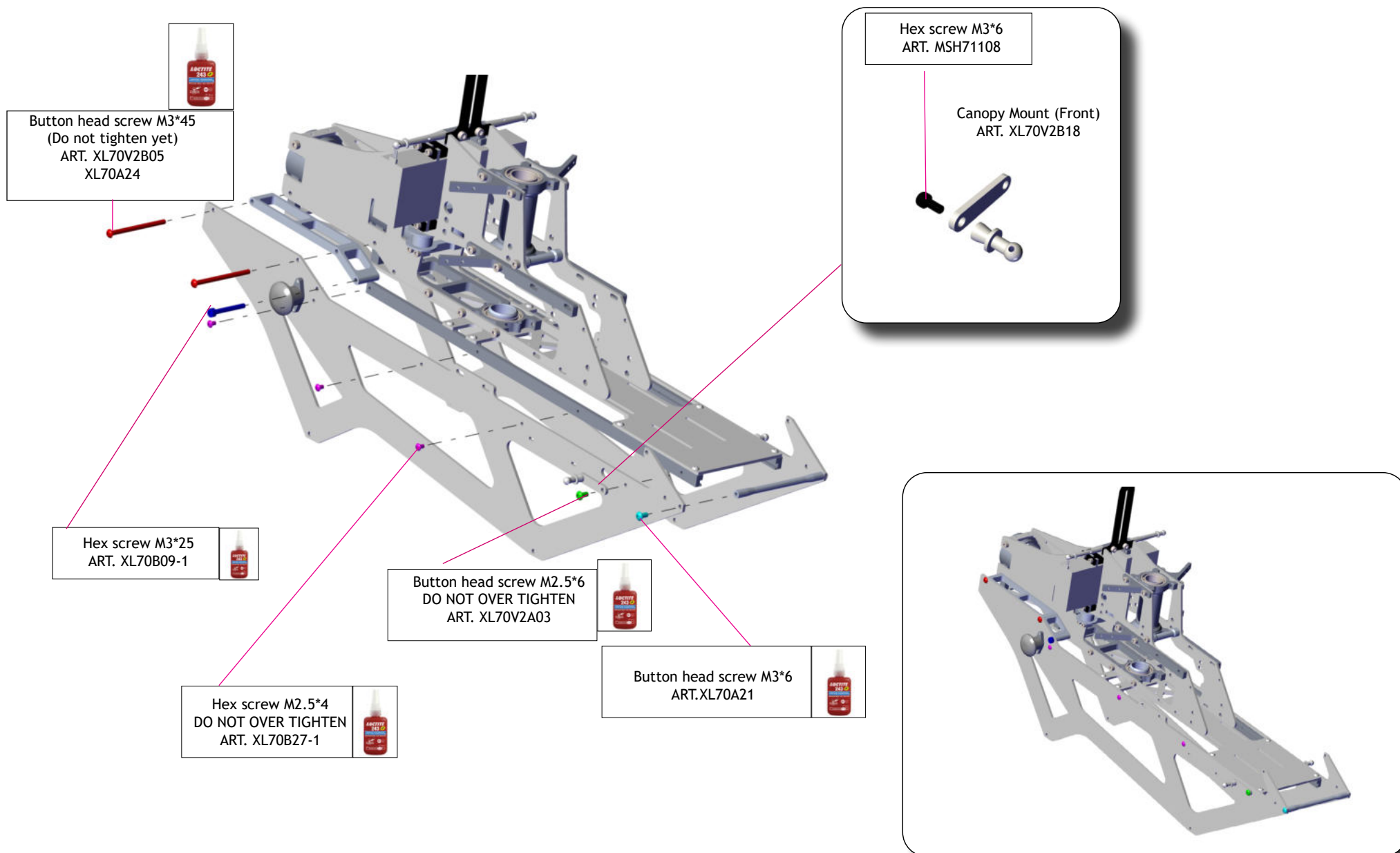
Rear frame Spacer  
ART. XL70V2B17



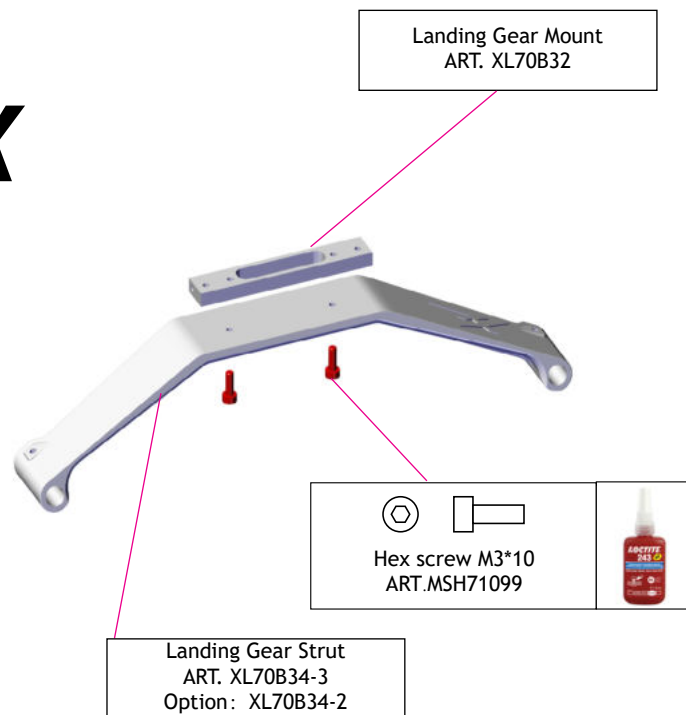




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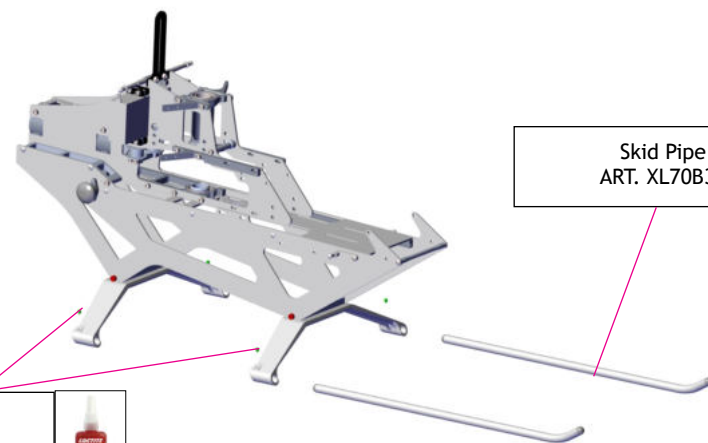
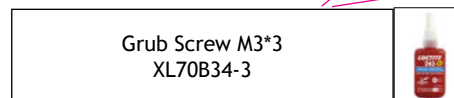
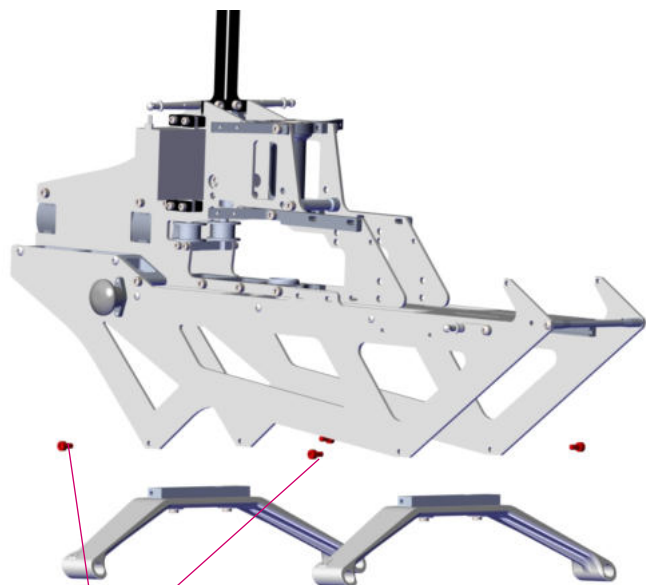




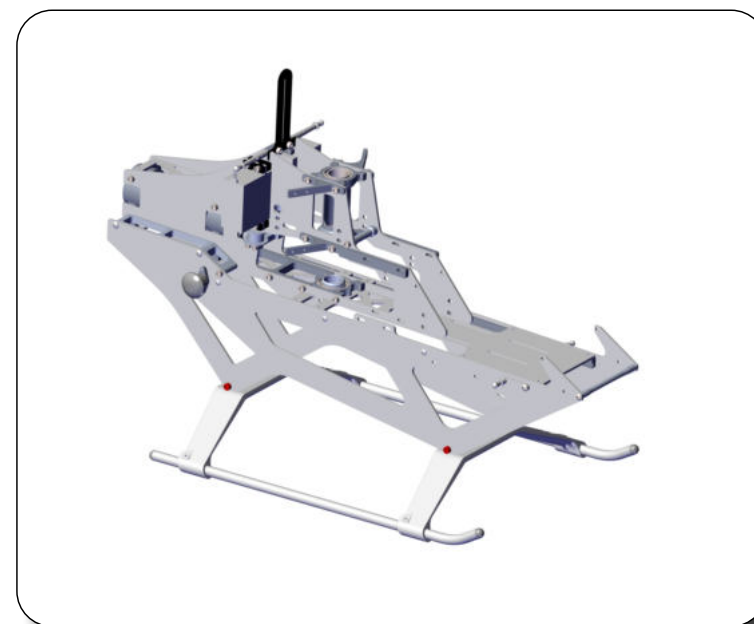
**2X**



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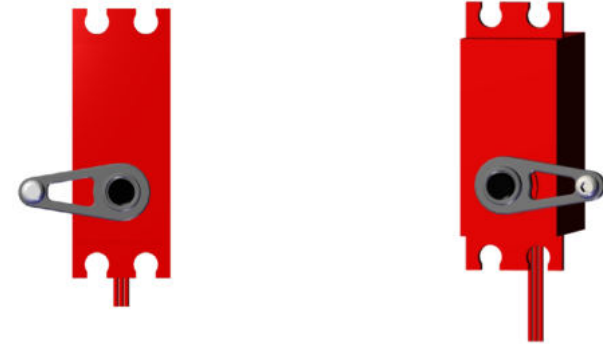
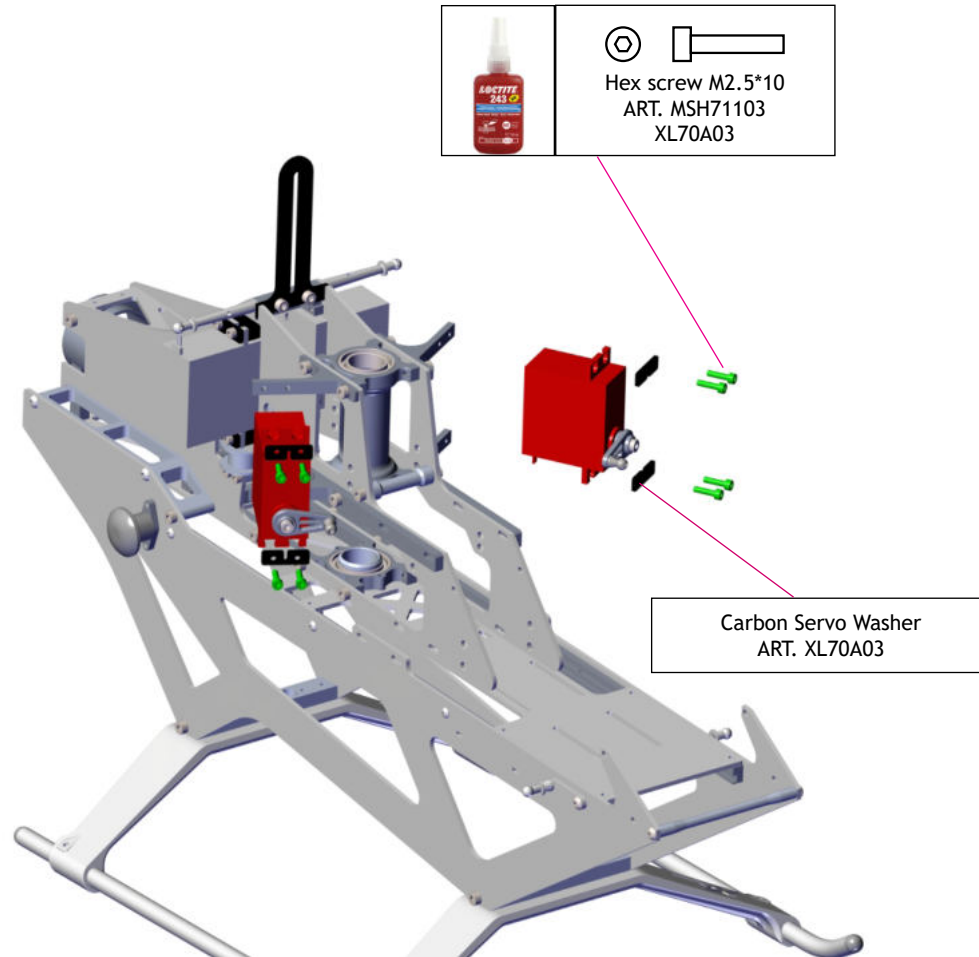


Skid Pipe  
ART. XL70B35



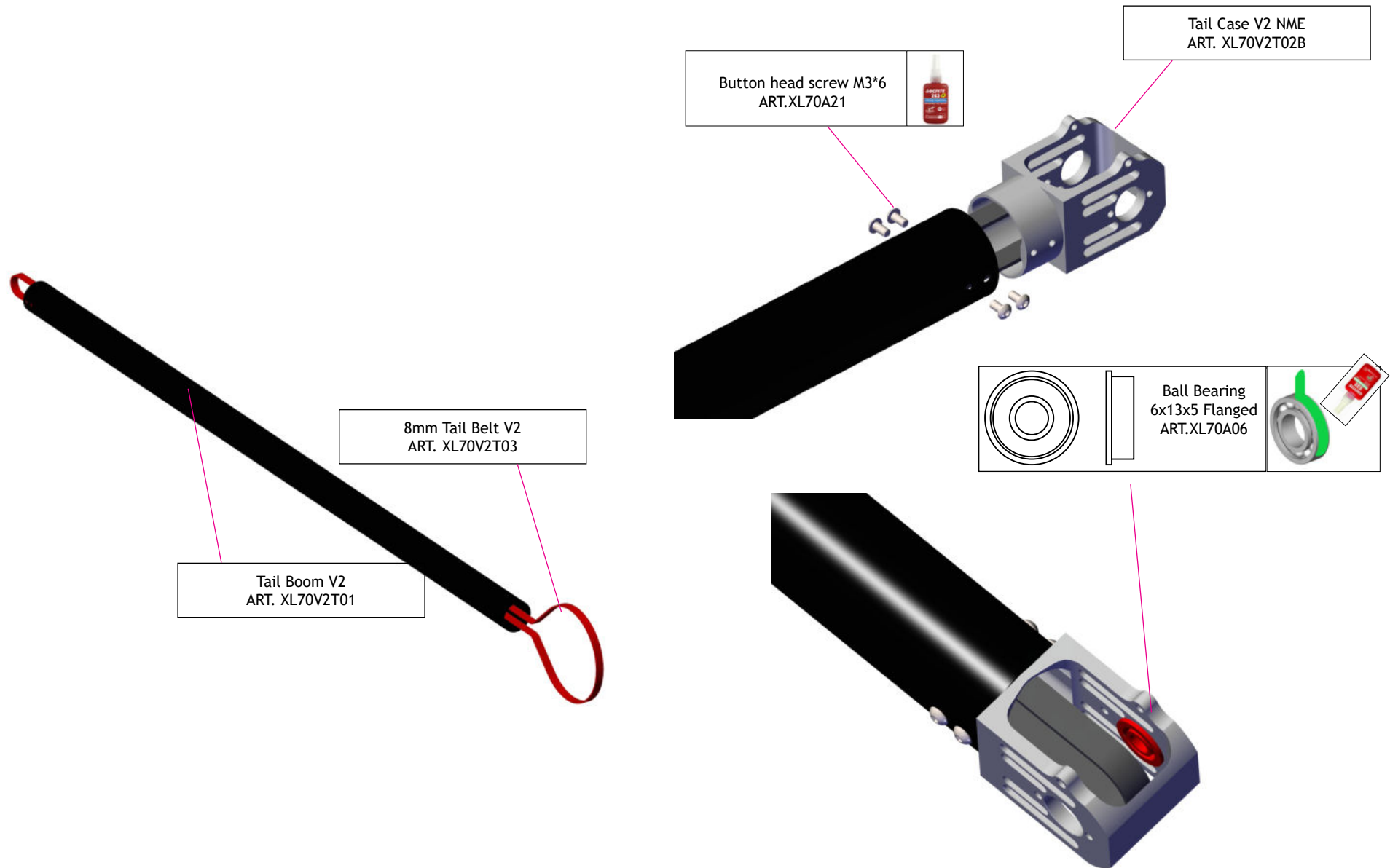


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Tighten securely, and ensure the grub screw engages with the small recess in the tail shaft

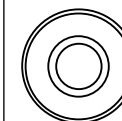
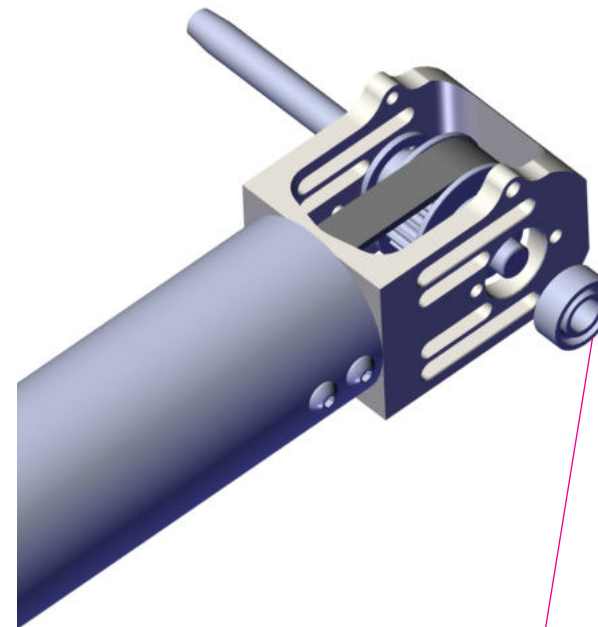
Grub screw M4\*4  
MSH71122



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

Tapered End Tail Shaft  
ART. XL70T13-1

O ring  
ART. XL70A17



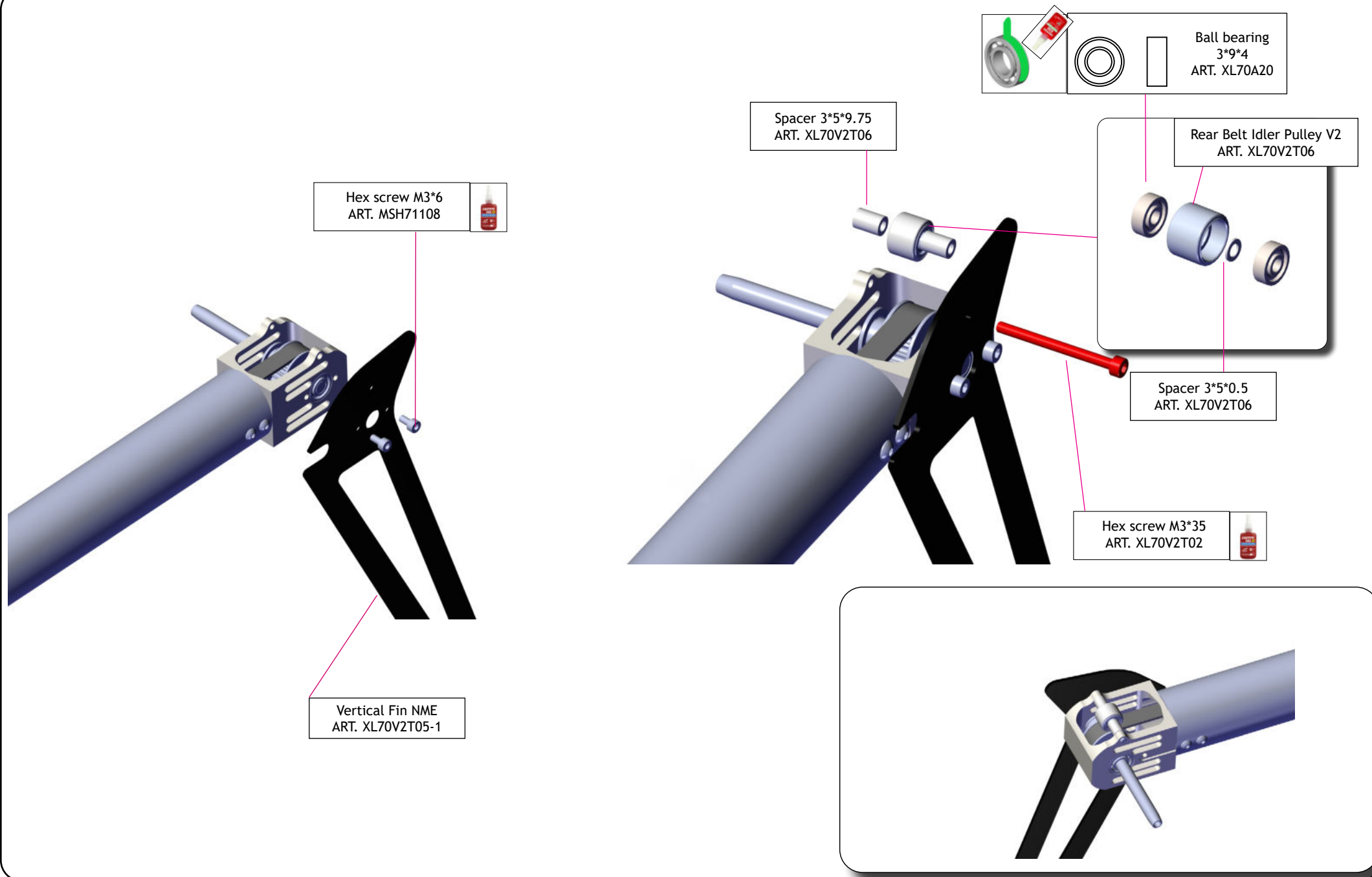
Ball bearing  
6\*13\*5  
ART. XL70A06-1



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



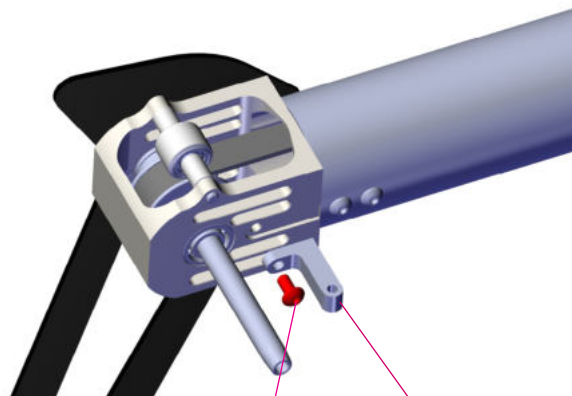
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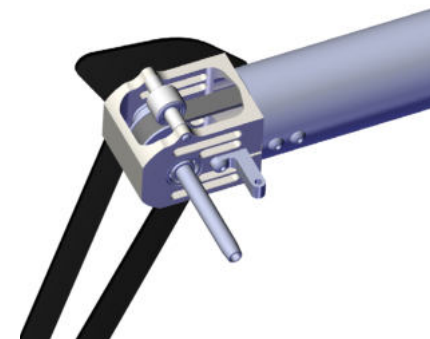
1



Button head screw  
M3\*6  
ART.XL70A21

Tail Pitch Lever Support  
NME  
ART. XL70T11B

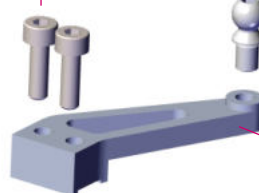
2



3

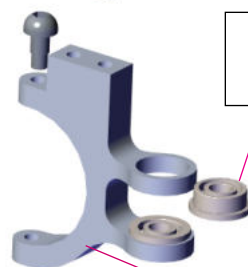
Hex screw M2.5\*8  
ART. MSH71111

Ball 5mm M3\*3  
ART.XL70A01



Tail Pitch Control Arm  
NME  
ART. XL70V2T07B

Ball Bearing  
3\*7\*3 Flanged  
ART.XL70A22

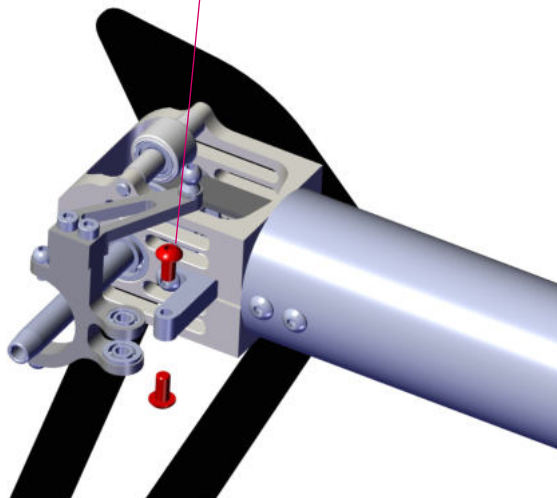


Tail Pitch Lever NME  
ART. XL70T09B

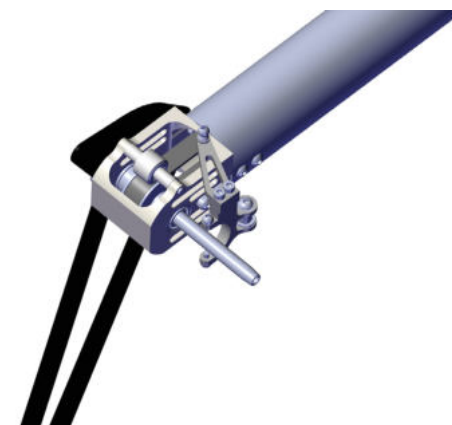
Tail pitch lever screw M2.5\*6  
ART. XL52T09-2



4



5



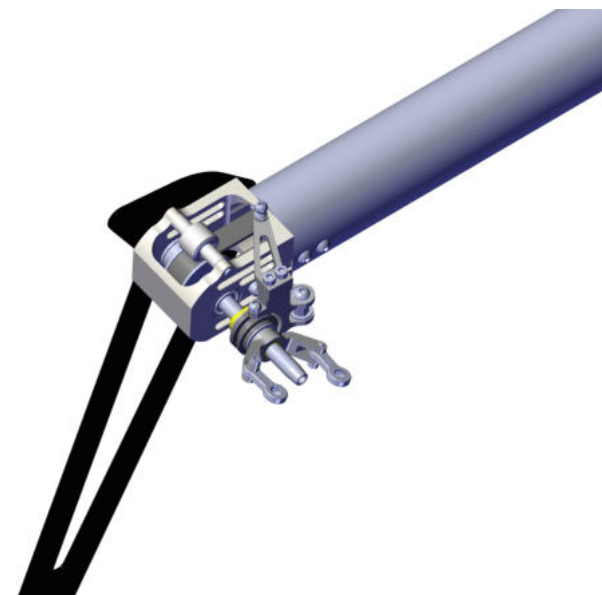
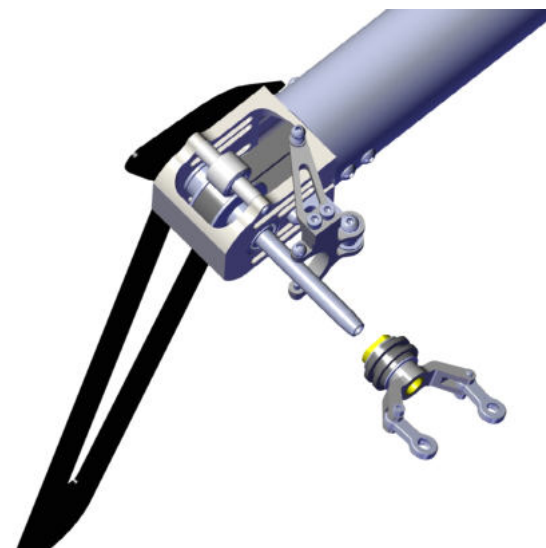
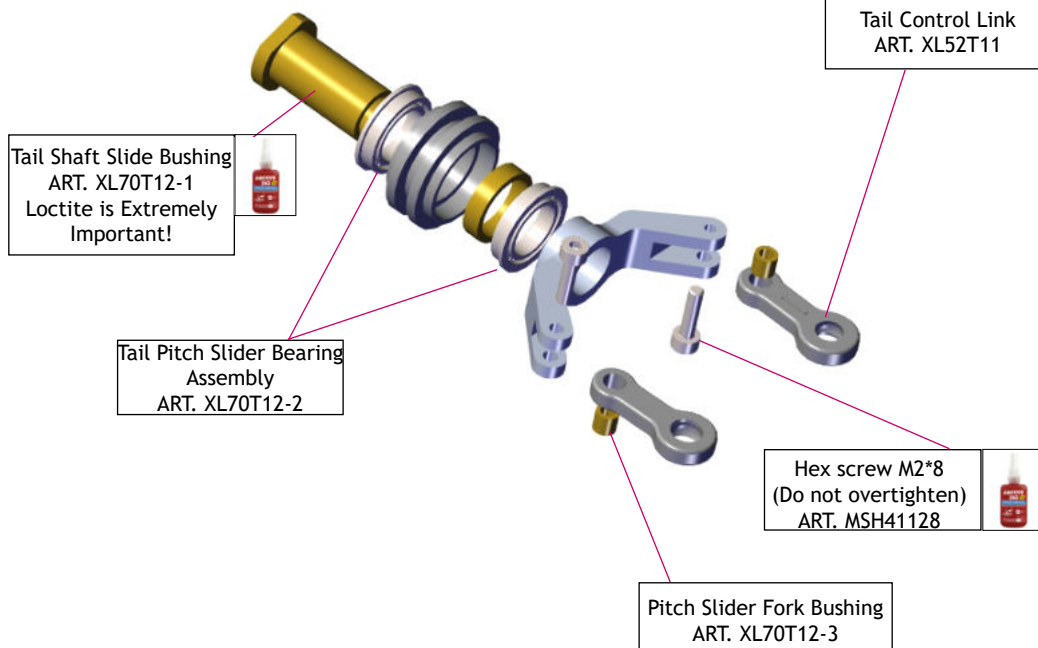




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



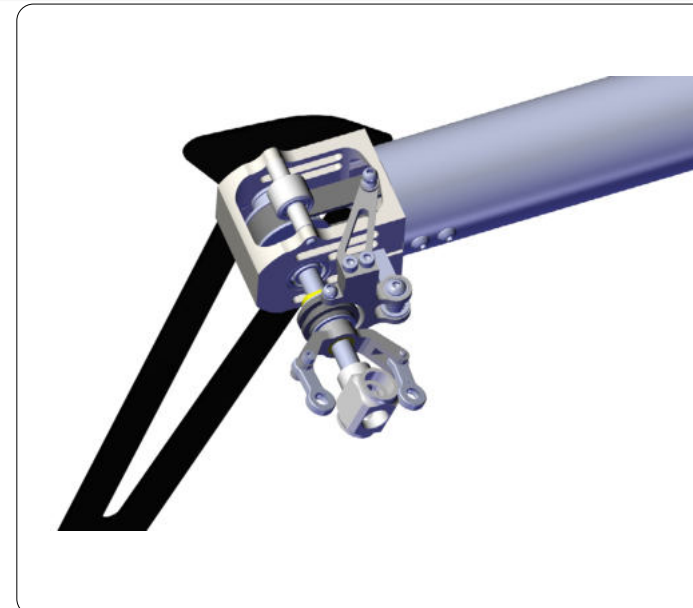
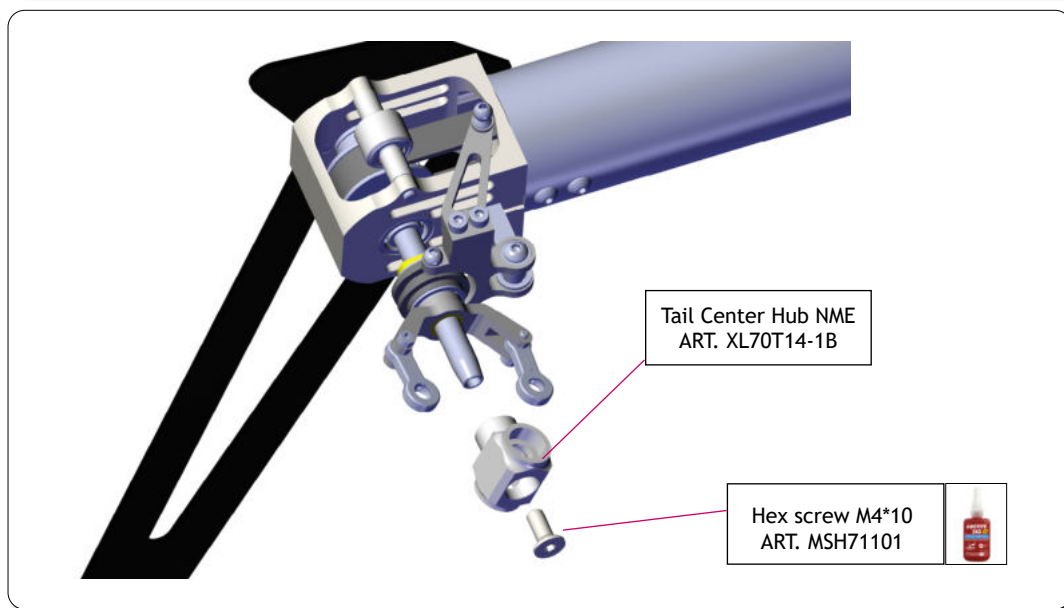
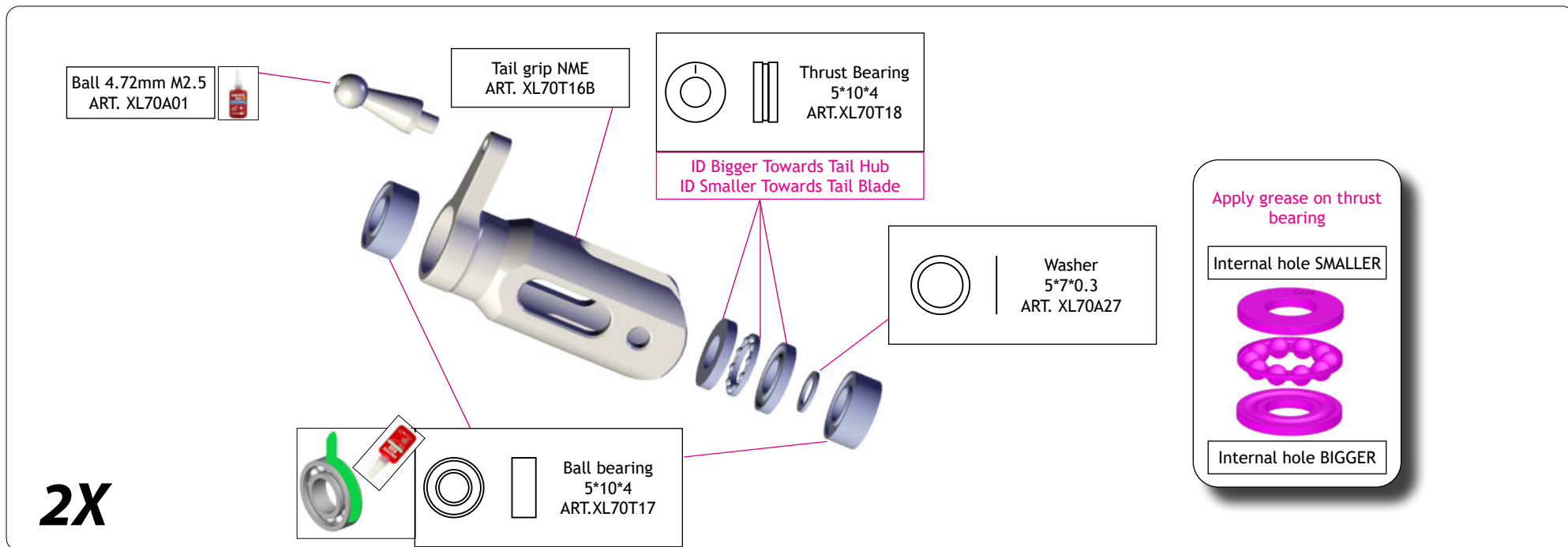
Tail pitch assembly  
NME  
ART. XL70T12B

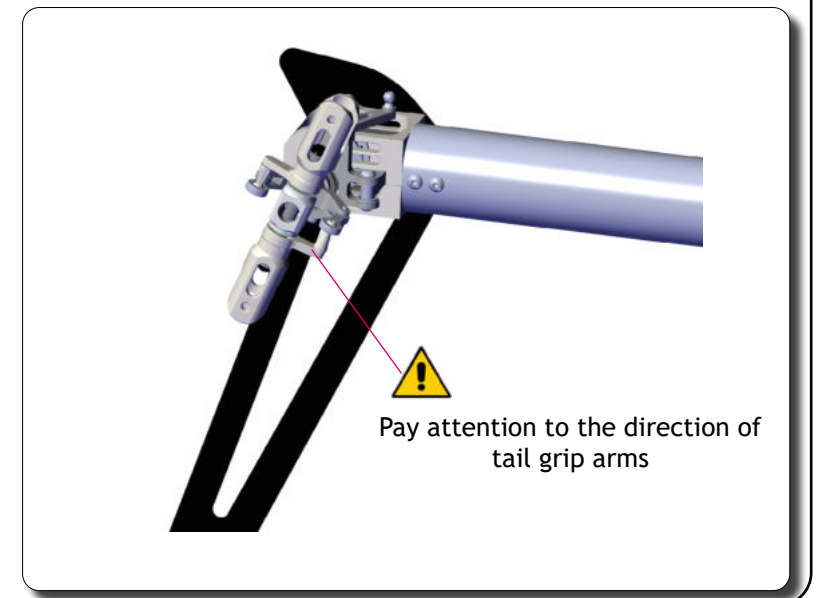
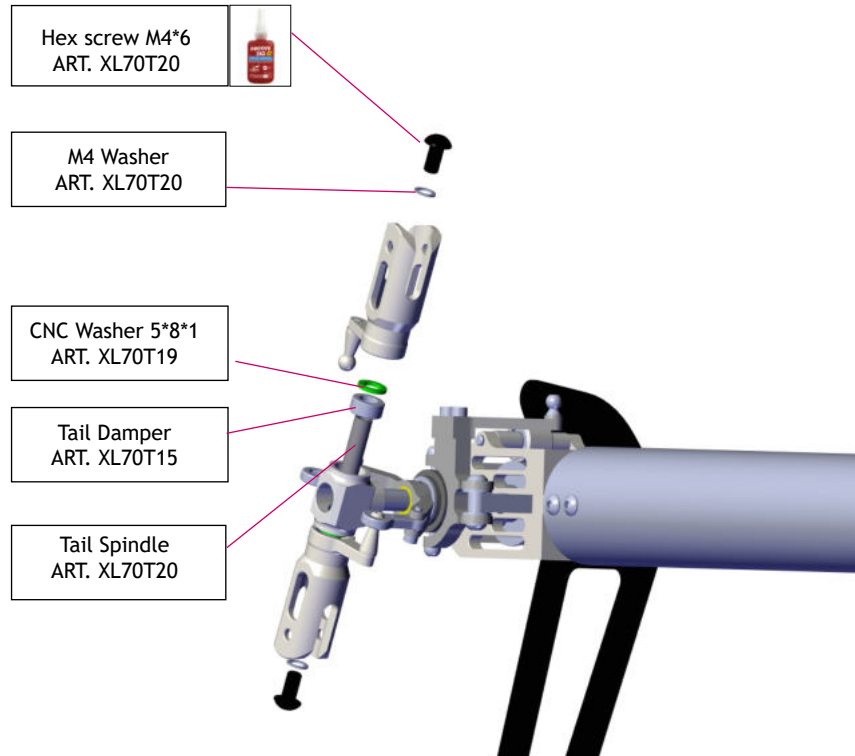






Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight







Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

Button Head screw M3\*14  
ART. XL70V2B21



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



Upper one way hub  
ART. XL70V2B21

One way bearing (pay attention to the direction)  
You may add grease to one-way bearing  
ART. XL70B21-1

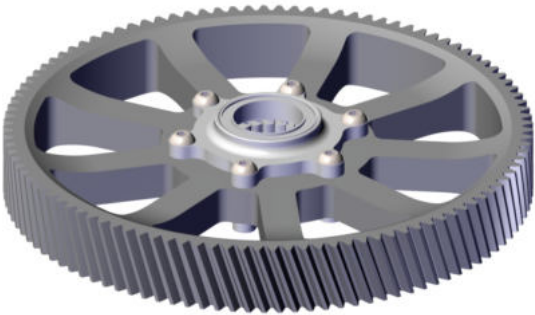
18mm Heavy Duty Main Gear 106T Mod1 (ART. XL70V2B11)  
Included in Kit

Option:  
Main Gear 106T Mod1 (ART. XL70B20)  
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)

Lower one way hub  
ART. XL70V2B21

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



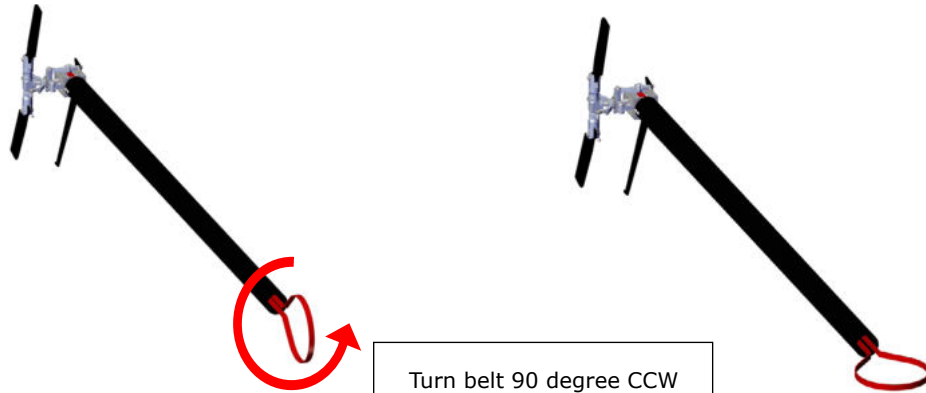
One way bearing direction (from upside)





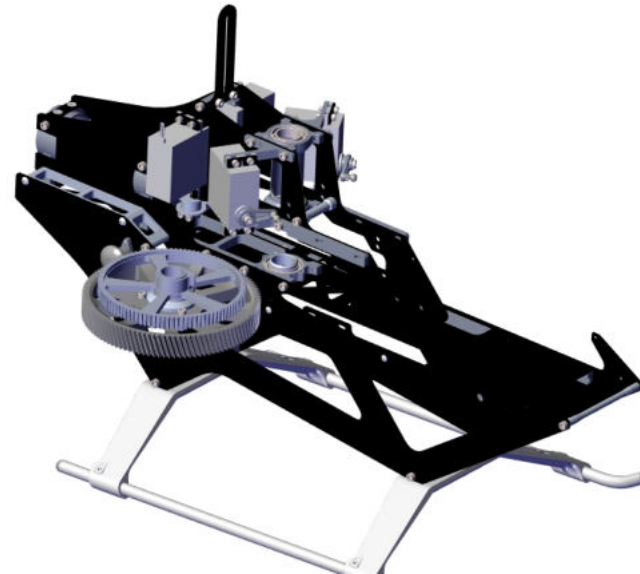
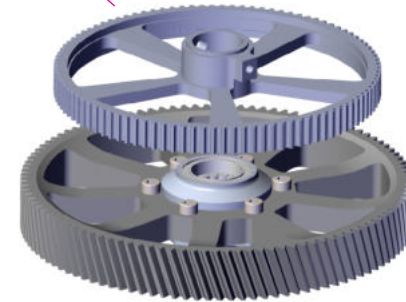
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

**SPECTER 700V2**



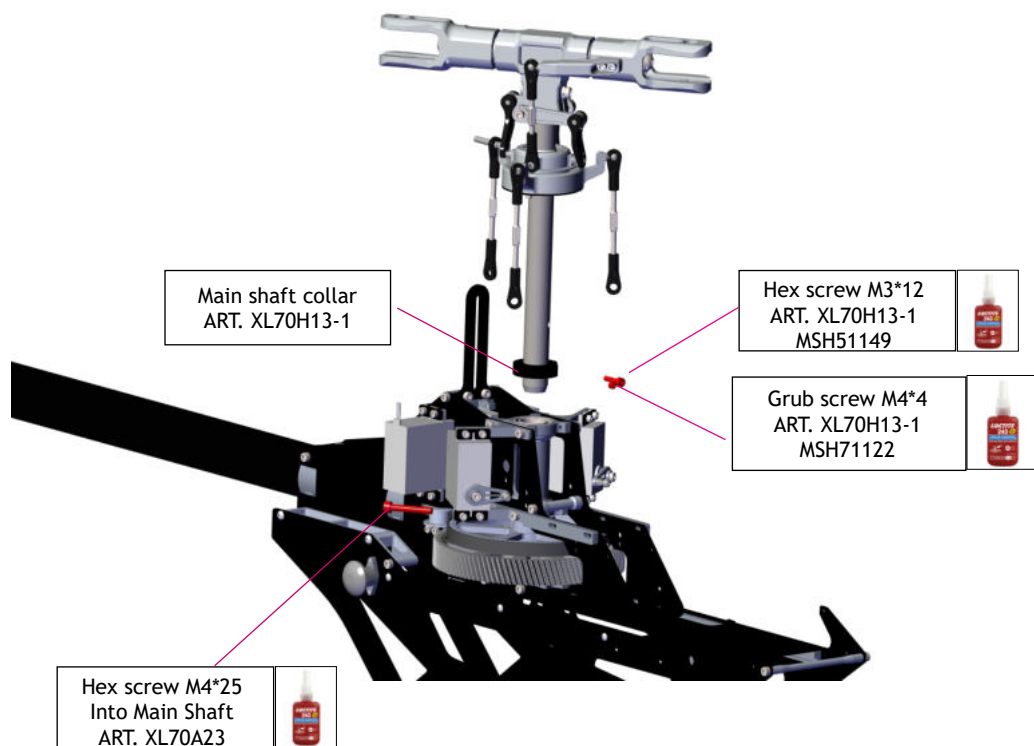
Turn belt 90 degree CCW

100T Front Pulley  
ART. XL70V2B12

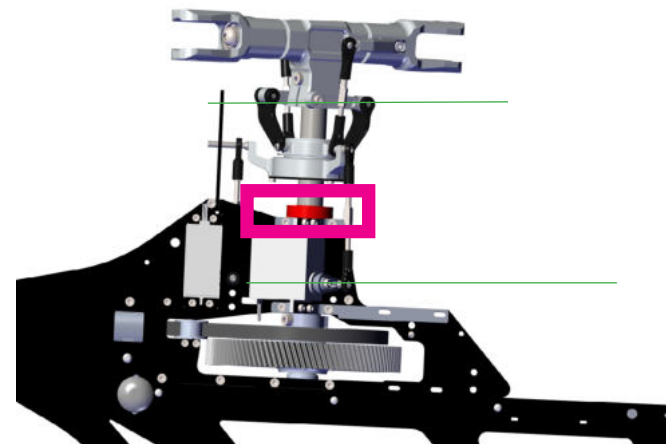




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

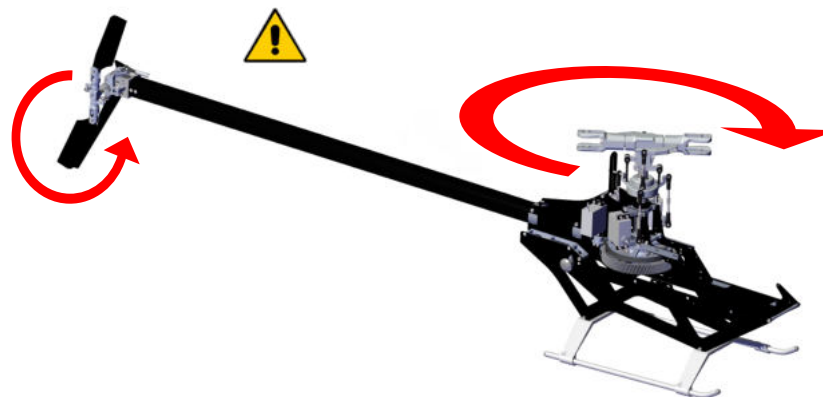


- Pull up main shaft
- Push down shaft collar
- Fully tighten M3\*12 and M4\*4



Make sure level when 0 pitch

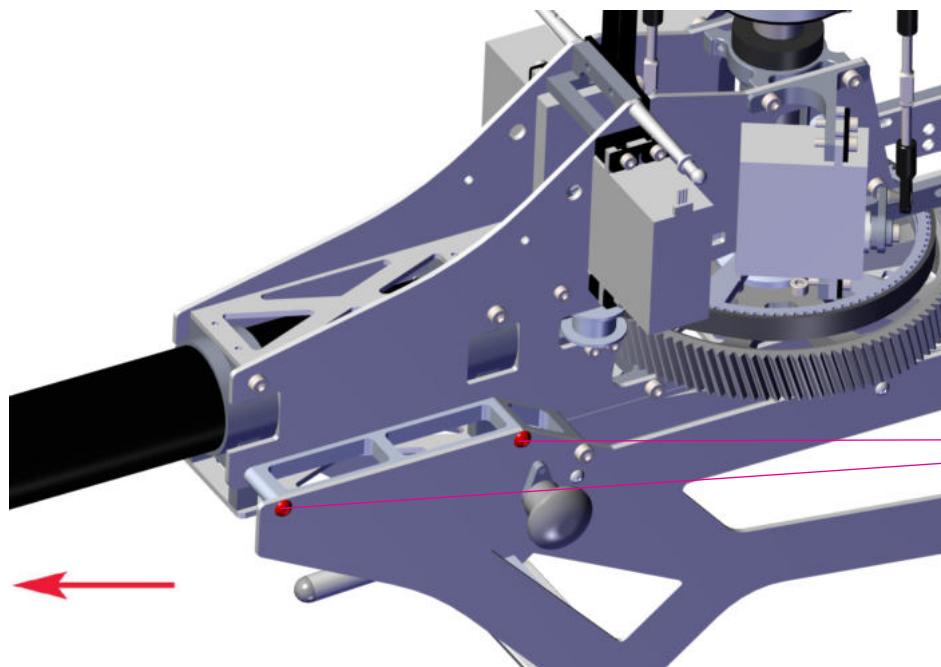
Check the rotation direction during the installation of the belt



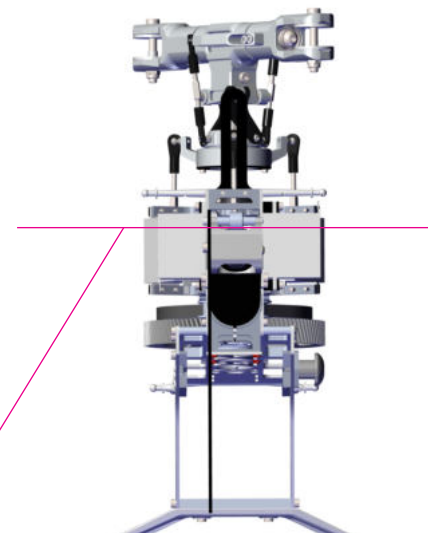




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

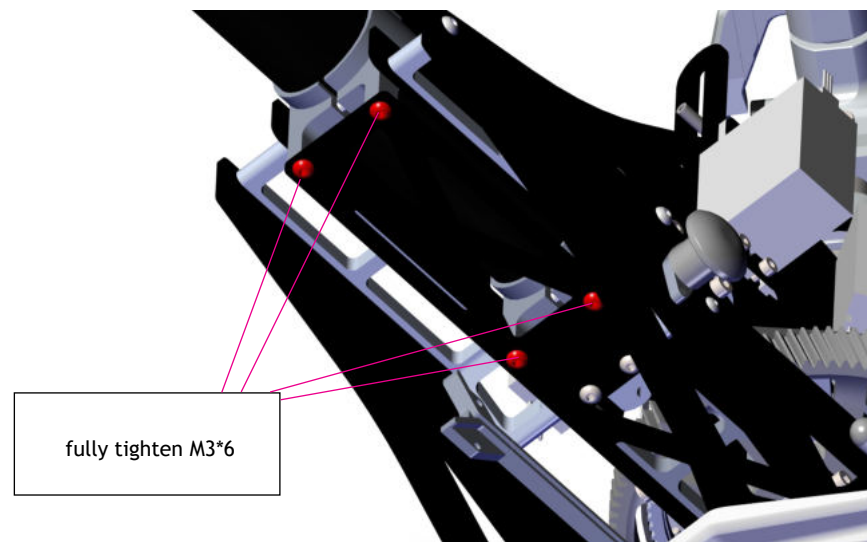


Button head screw M3x45  
Set belt tension by pulling backwards on the tail boom. Ensure tail tail case is level, then tighten screws.

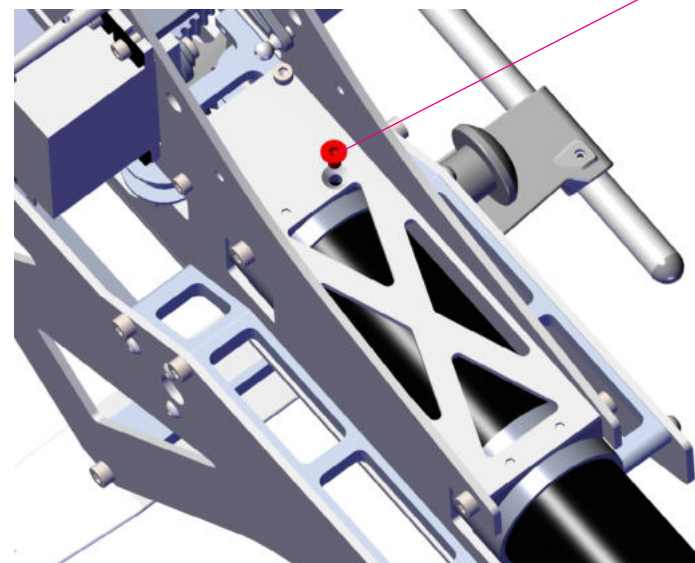


Check tail box lever before fully tightening M3\*45 screw

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

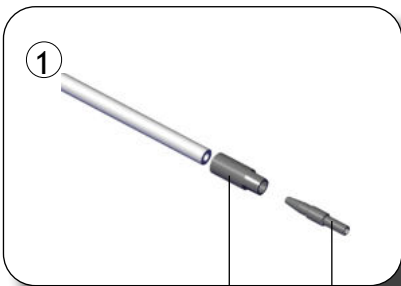


fully tighten M3\*6

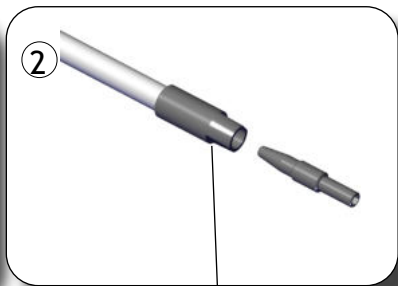




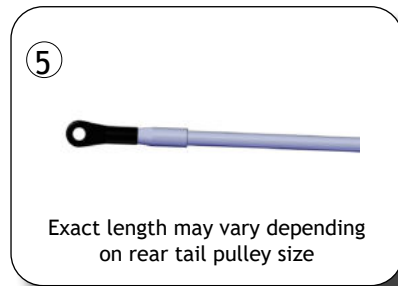
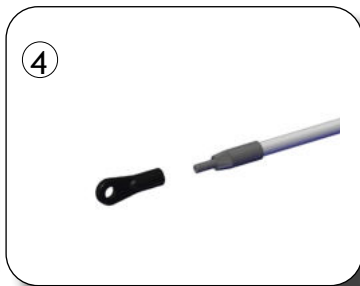
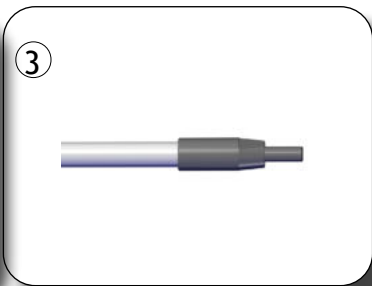
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



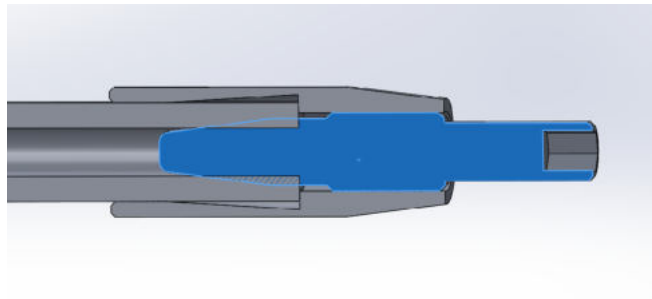
Tail pushrod end  
ART. XL70V2T08-1



Apply pressure pushing the end onto  
the carbon rod while tightening the end  
screw

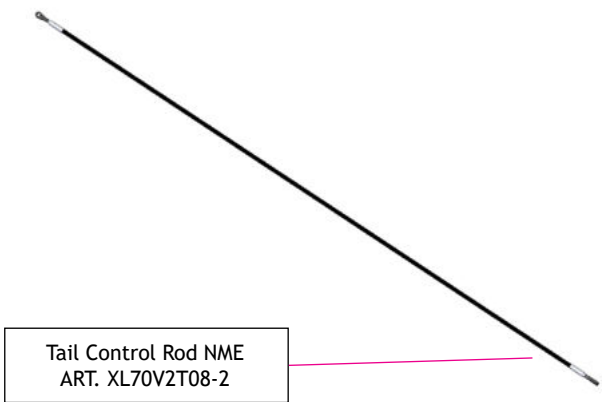


Exact length may vary depending  
on rear tail pulley size



Ball Link 5mm M3  
ART.XL70A02

Tail pushrod end linkage screw  
ART. XL70V2T08-1

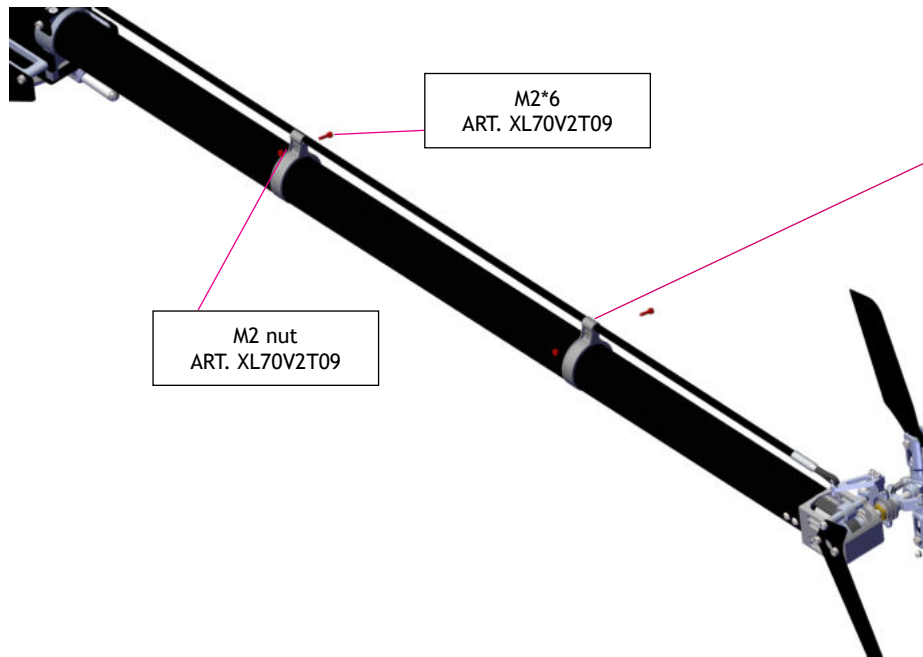


Tail Control Rod NME  
ART. XL70V2T08-2

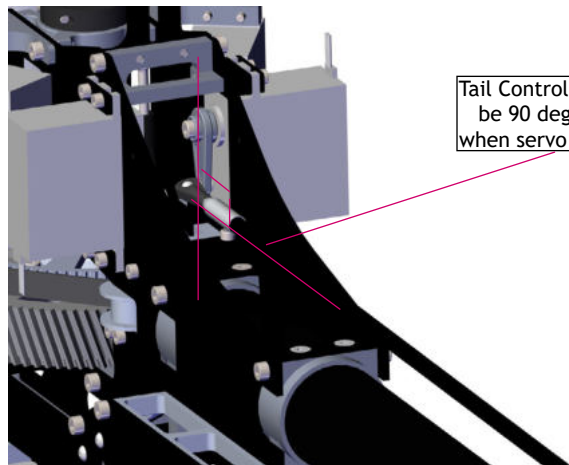




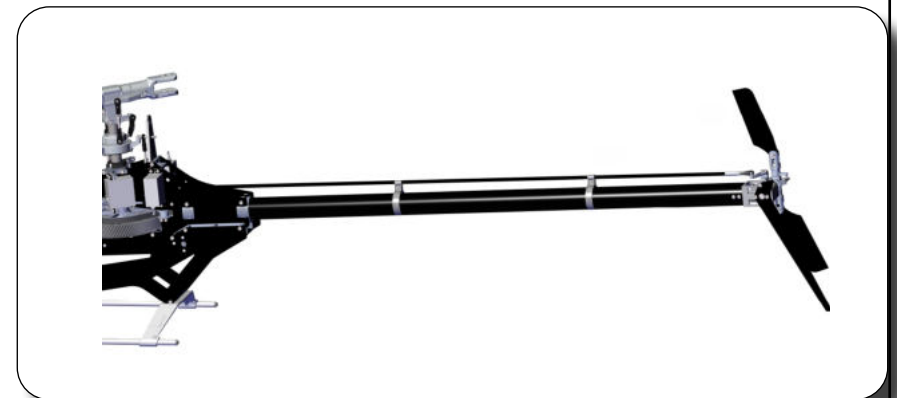
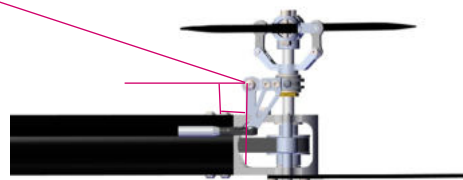
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



Tail Control Rod Guide  
ART. XL70V2T09



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







Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

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

Motor Mount Upper  
ART. XL70B05



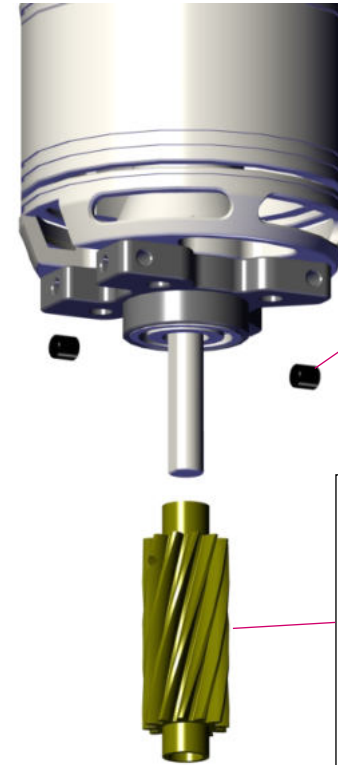
719 Angular Contact Ball Bearing  
ART. XL70B06

UP



Down

Pay attention to  
the bearing di-  
rection (Pre-assembled)



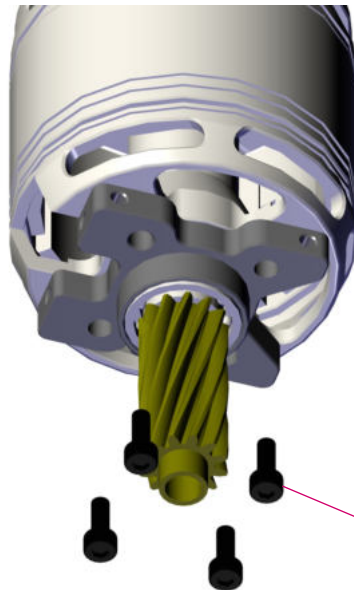
Grub screw M4\*4  
ART. MSH71122



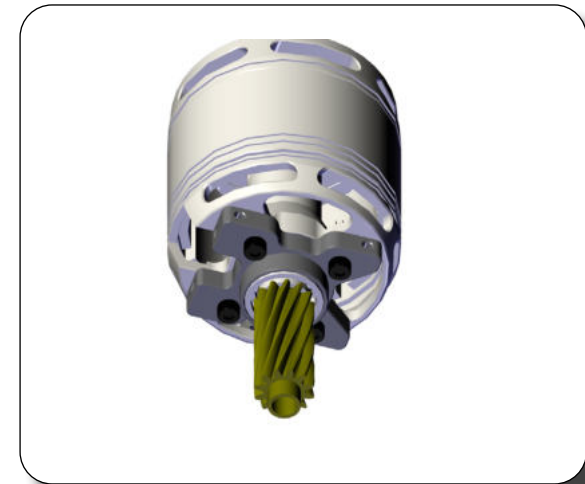
Motor pinion 11T  
ART. XL70G11  
Included in Kit

Option:  
XL70G10  
XL70G12

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



Hex screw M4x10  
ART. MSH71116





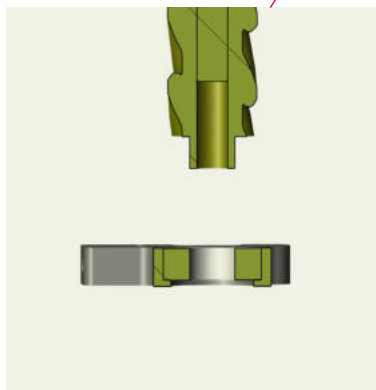
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



Ball Bearing 8\*16\*5  
ART. XL70A16

Add a small dab of green retaining compound (638/648/680/620) to outside of pinion to prevent wear to pinion and inner bearing race. Use heat to remove for maintenance.

Lower Motor Mount  
ART. XL70B07



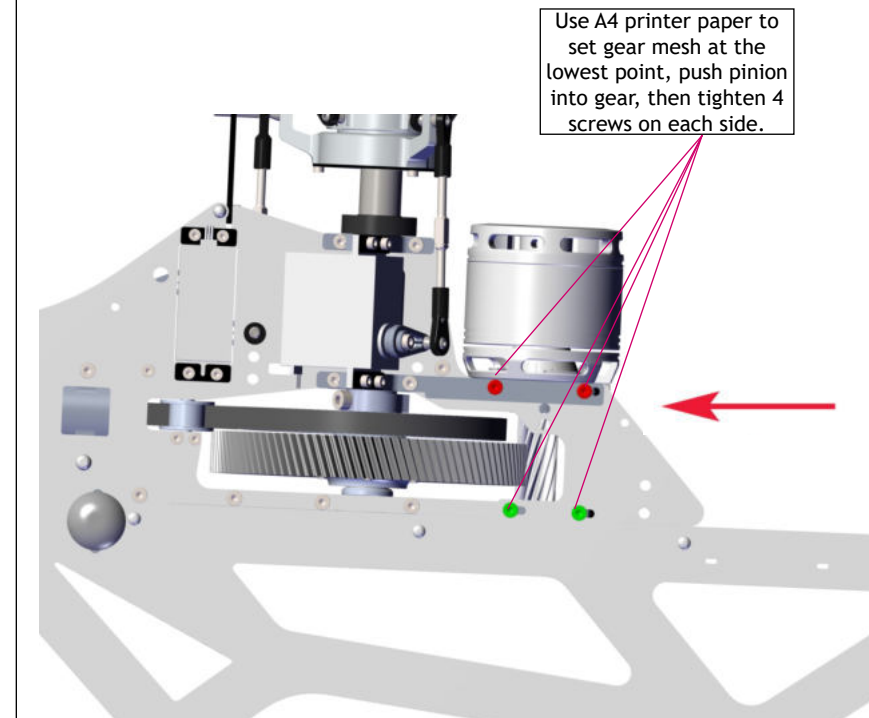
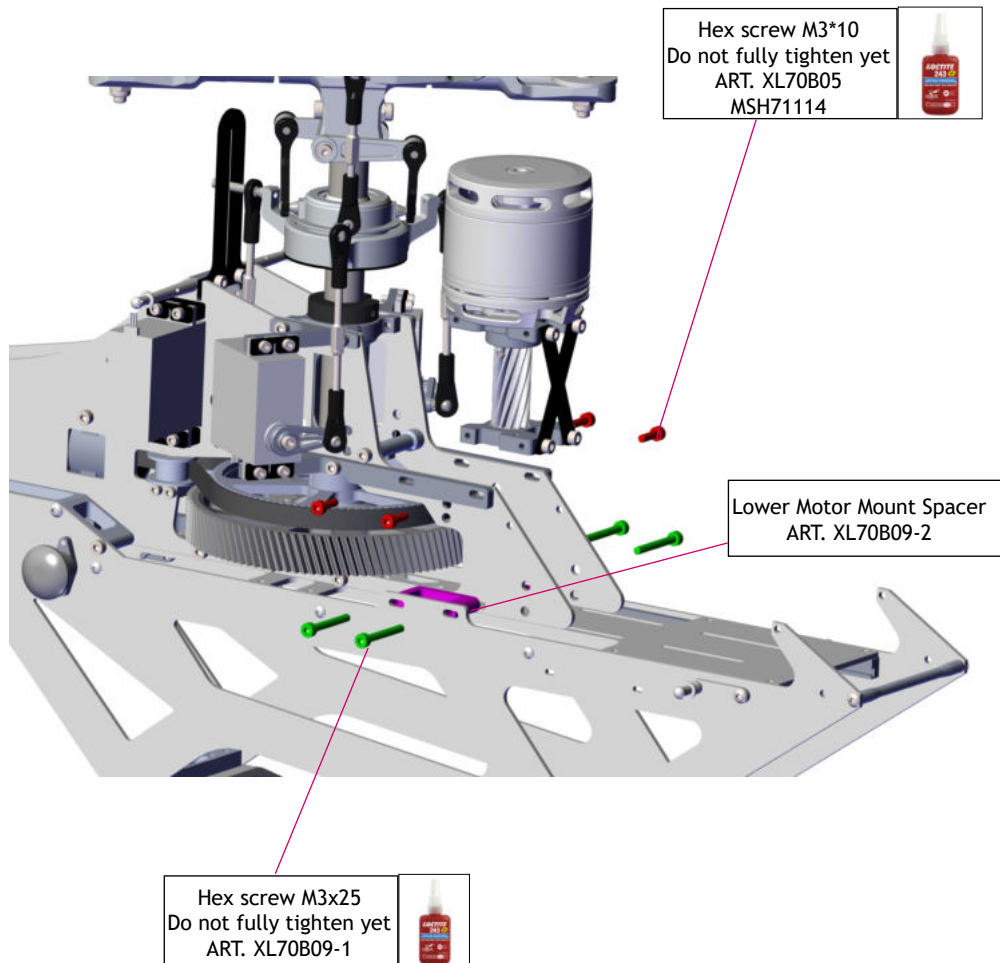
Pay attention to the bearing direction (Pre-assembled)

Hex screw M3x6  
ART. MSH71108



X Carbon Fiber Brace  
ART. XL70B08

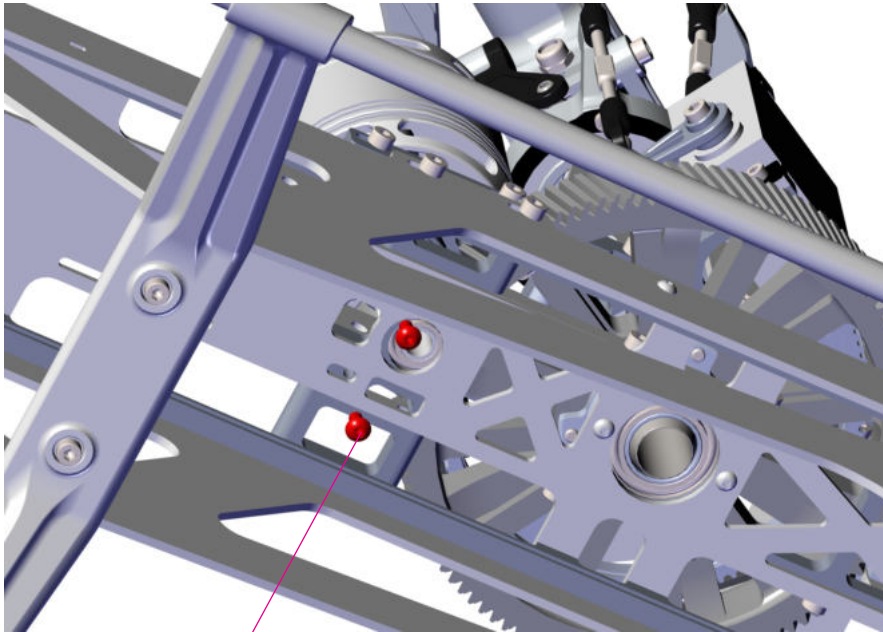




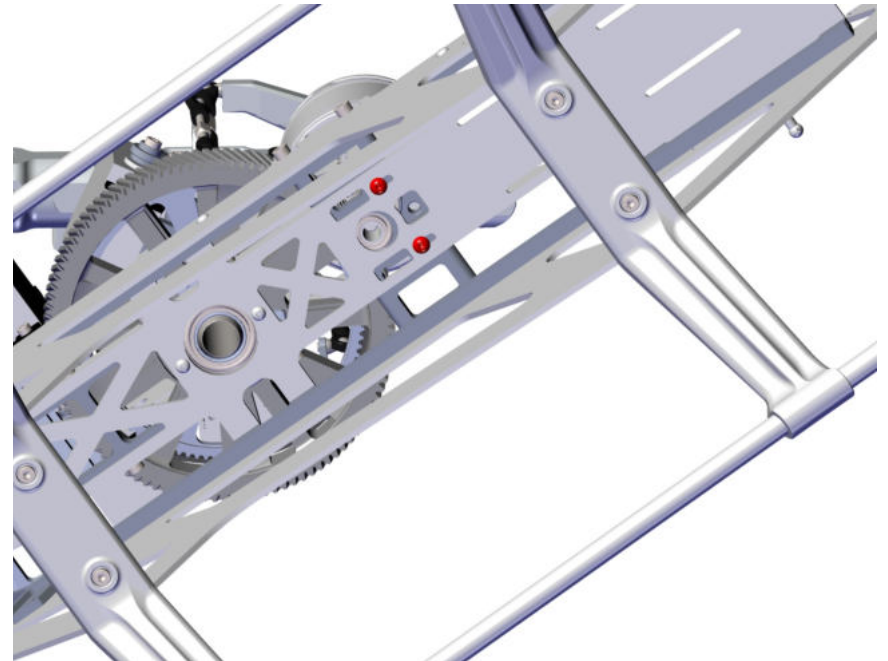


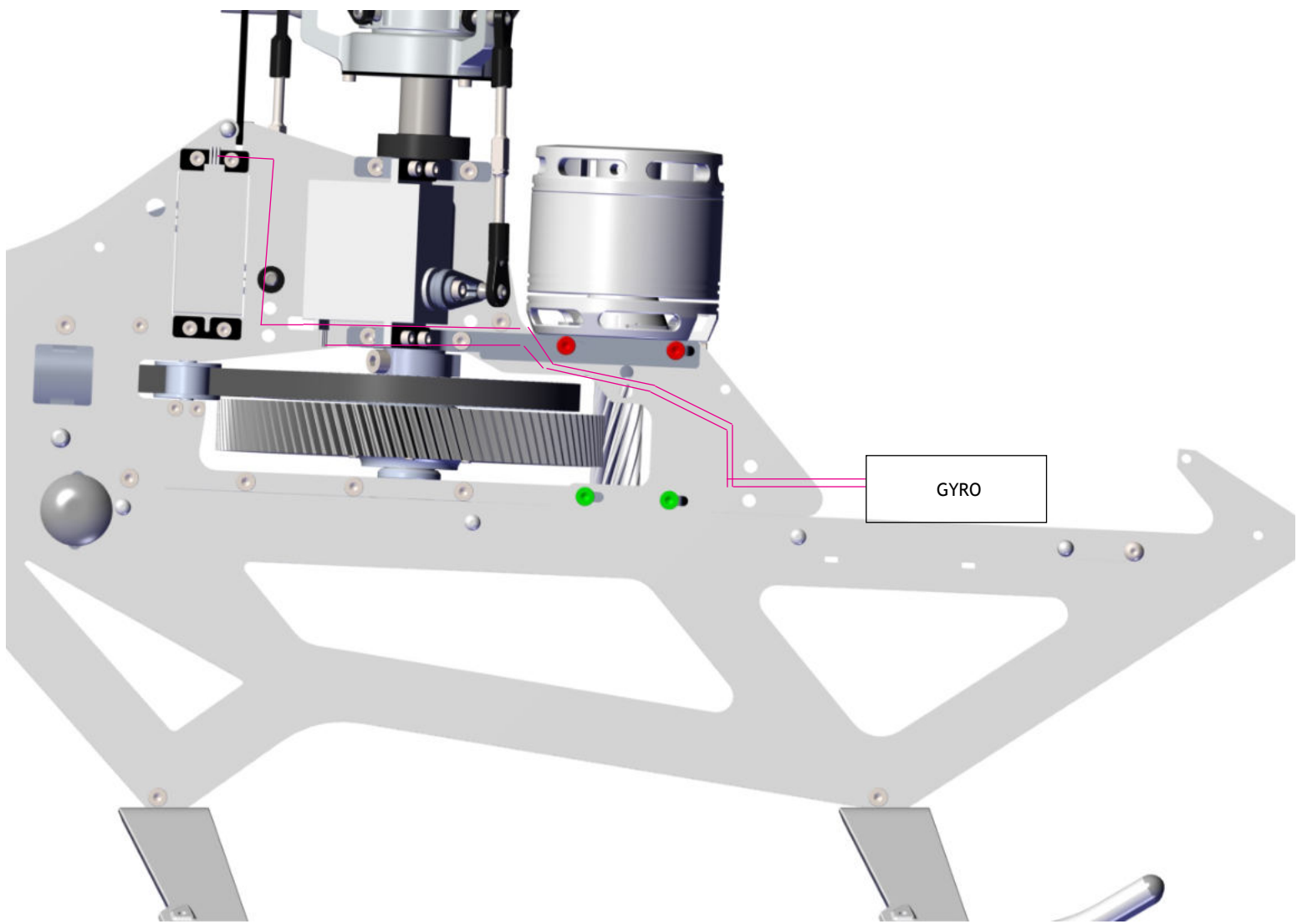
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

**SPECTER 700** V2



Button head screw  
M3\*6  
ART.XL70A21

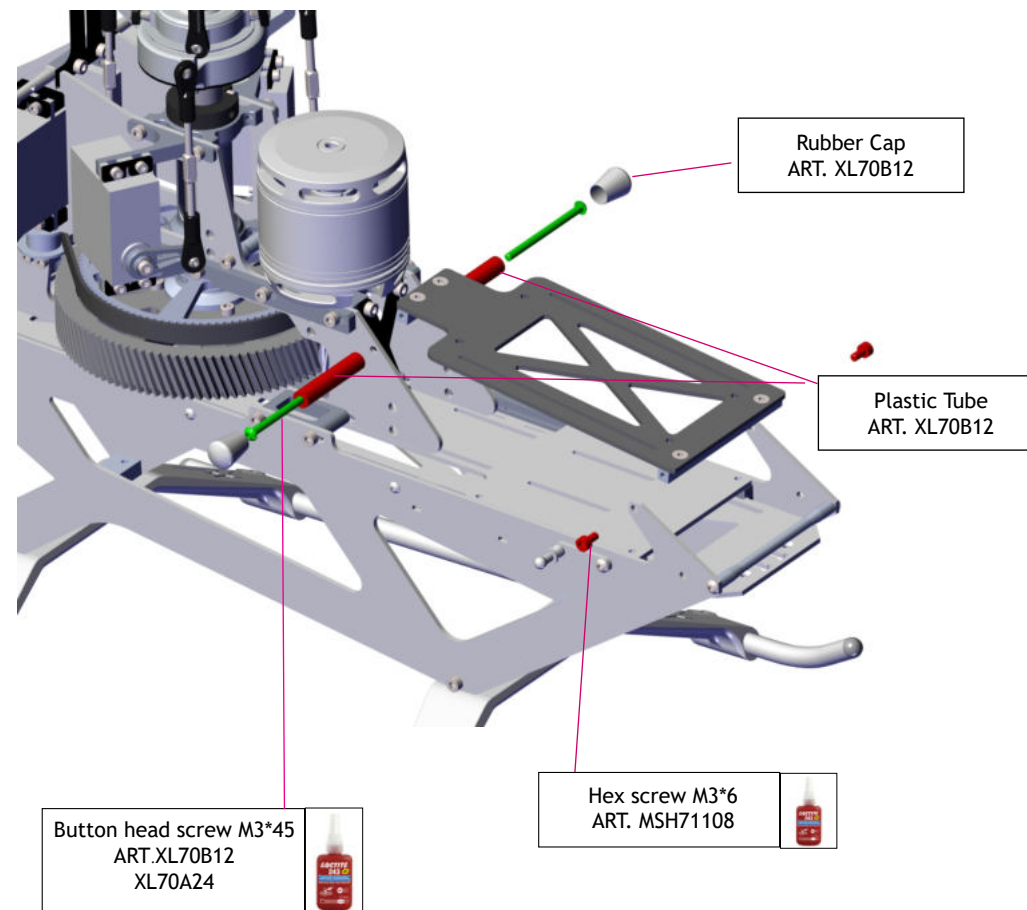
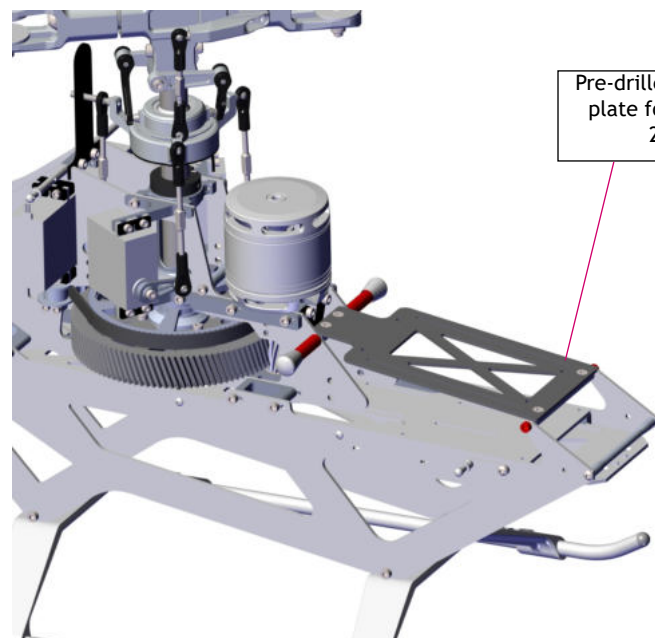
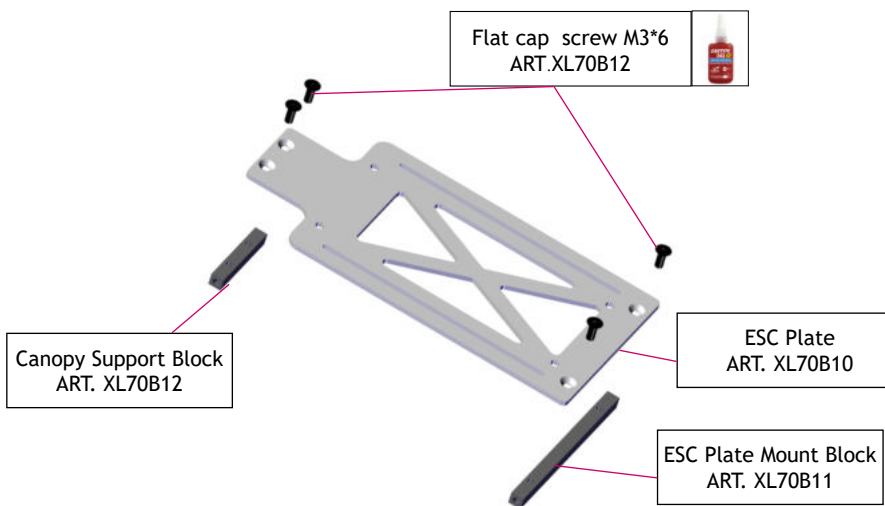








Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



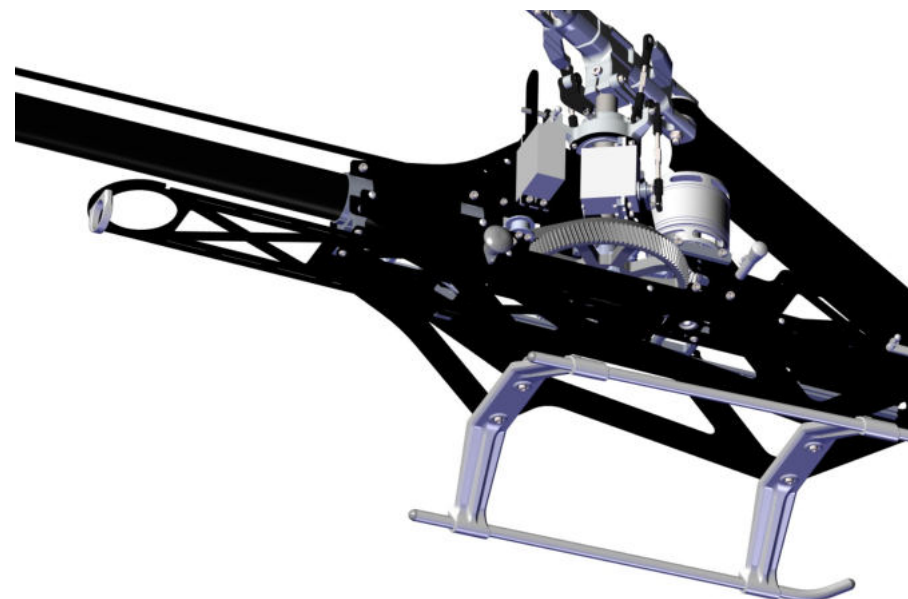


Battery Tray V2  
ART. XL70V2B13

Flat screw M2.5\*6  
ART.XL70V2B13



Battery Tray Puller  
ART. XL70V2B14



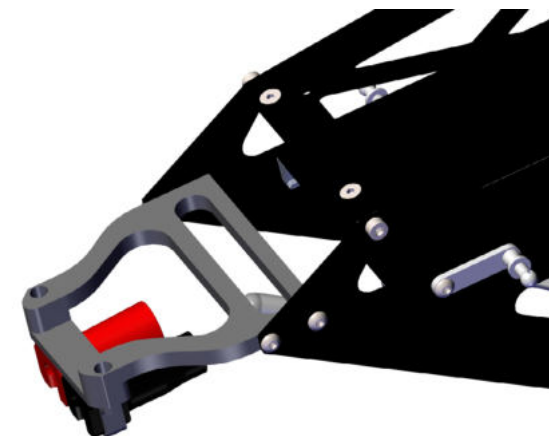
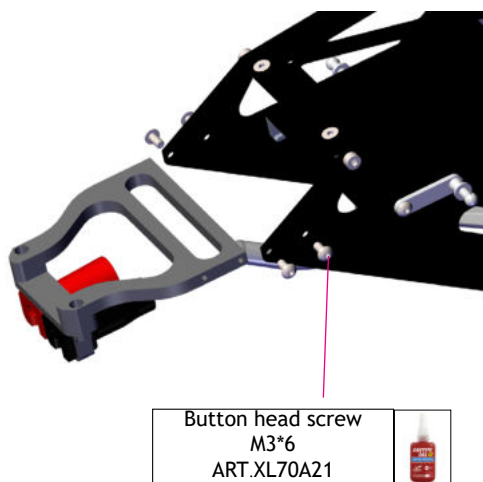
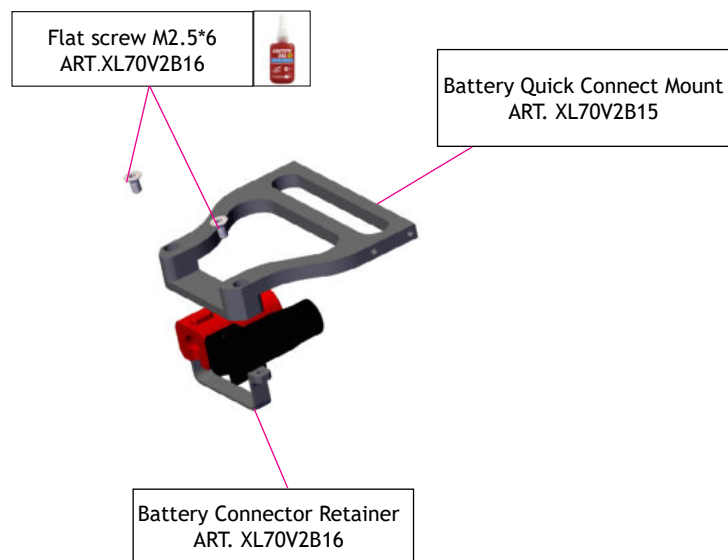
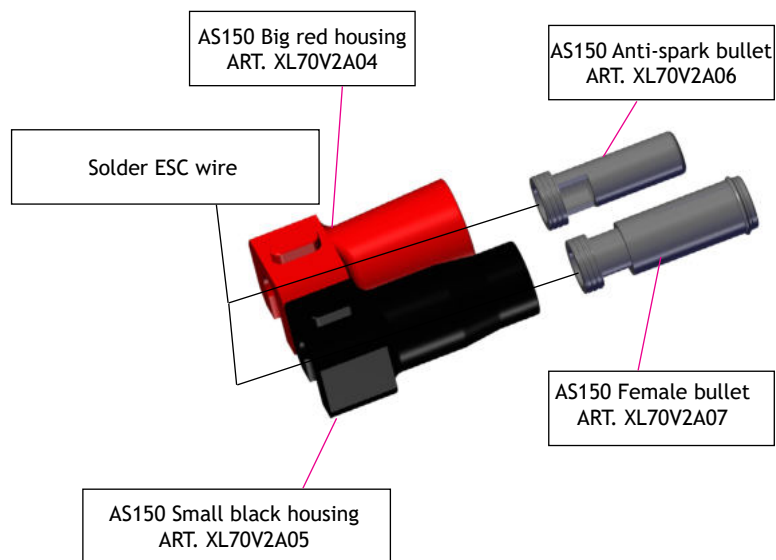


# Optional



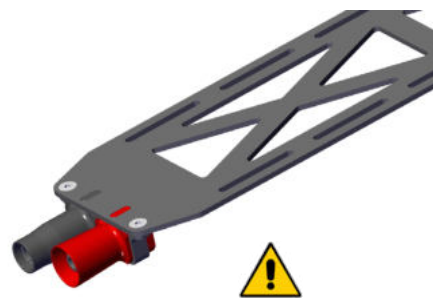
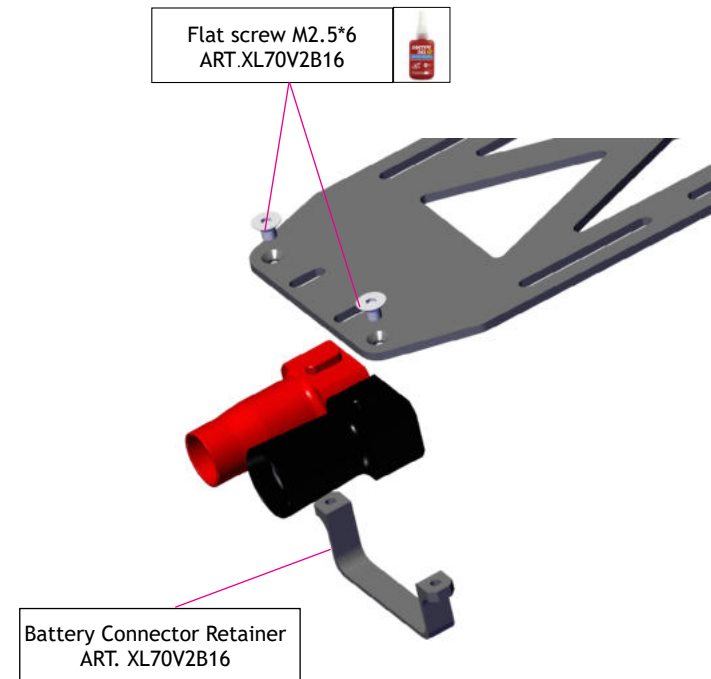
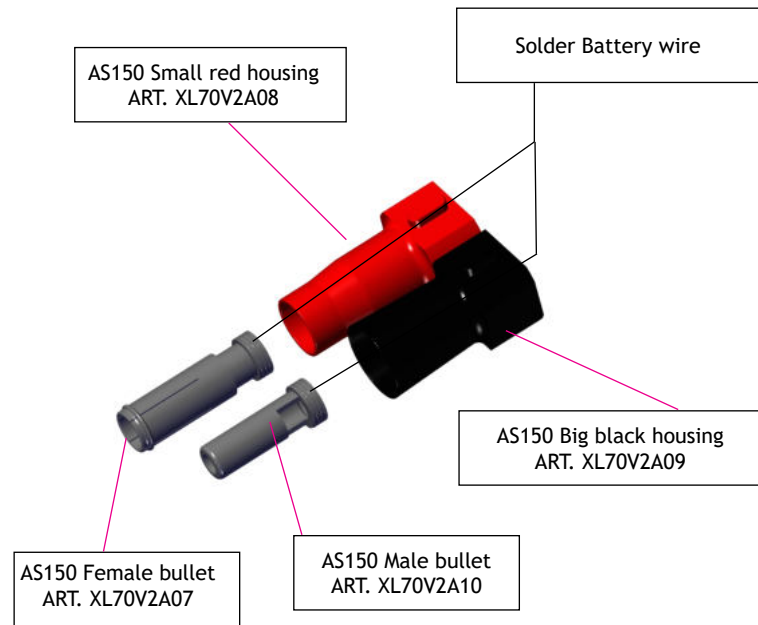
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

# SPECTER 700V2

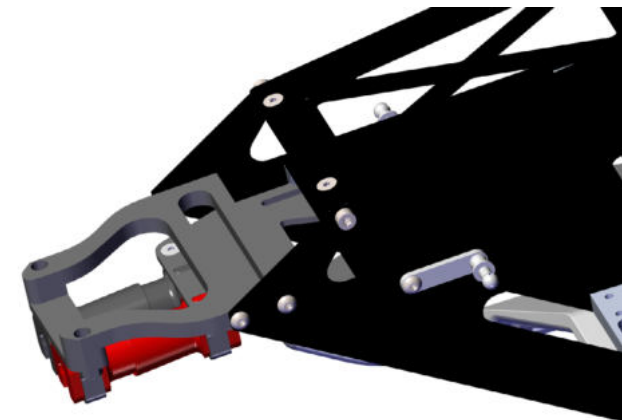




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

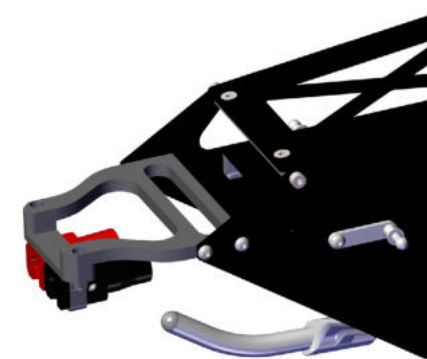
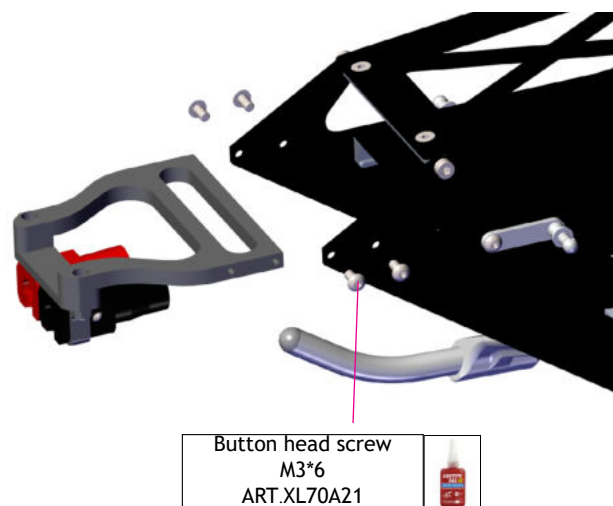
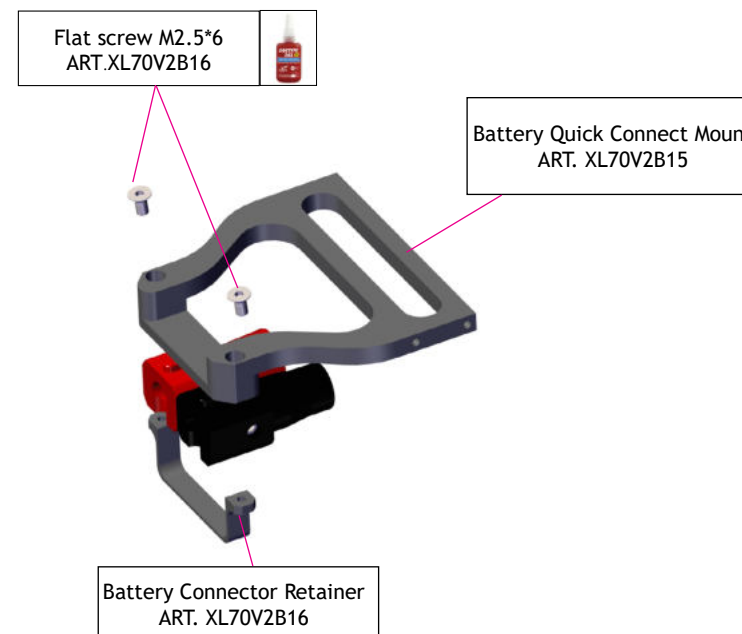
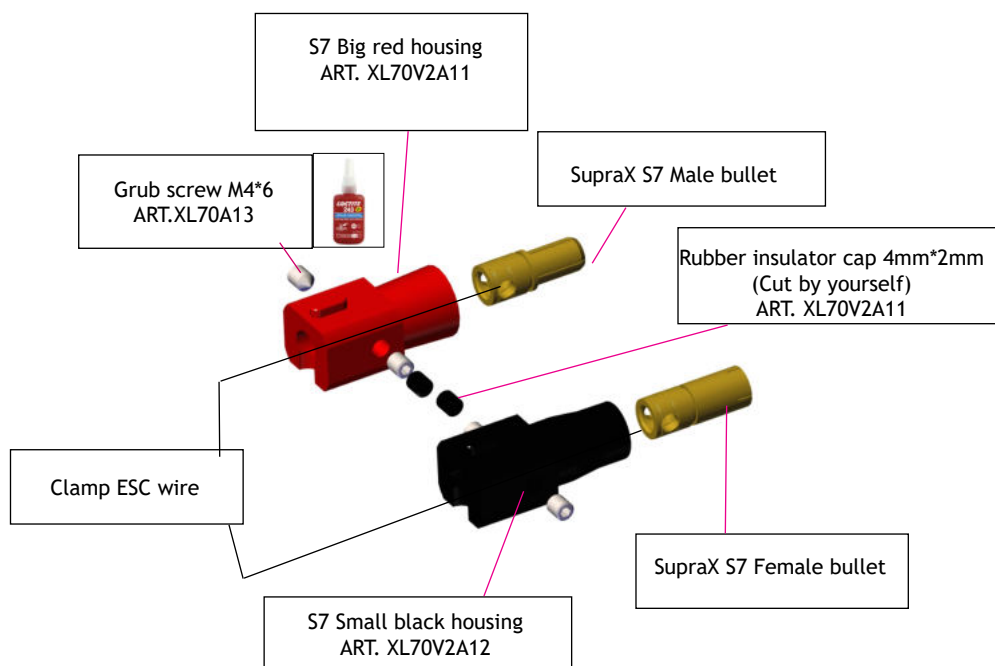


Make sure the connectors are fully mated before flying



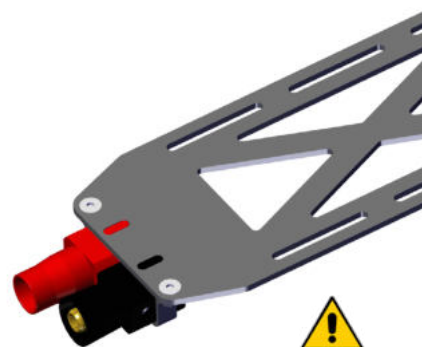
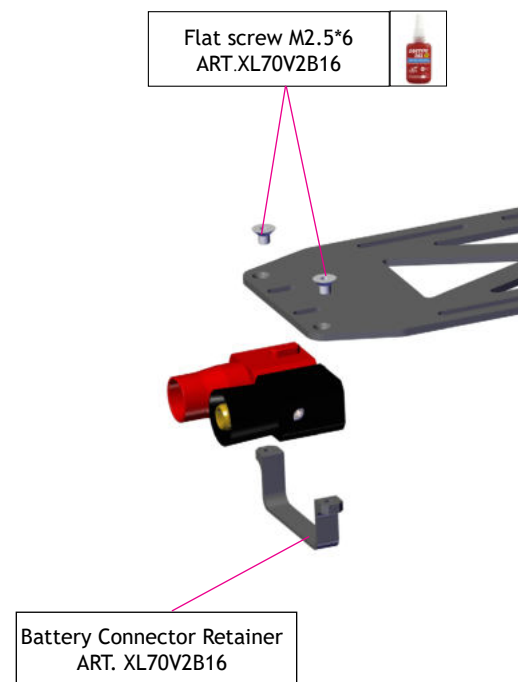
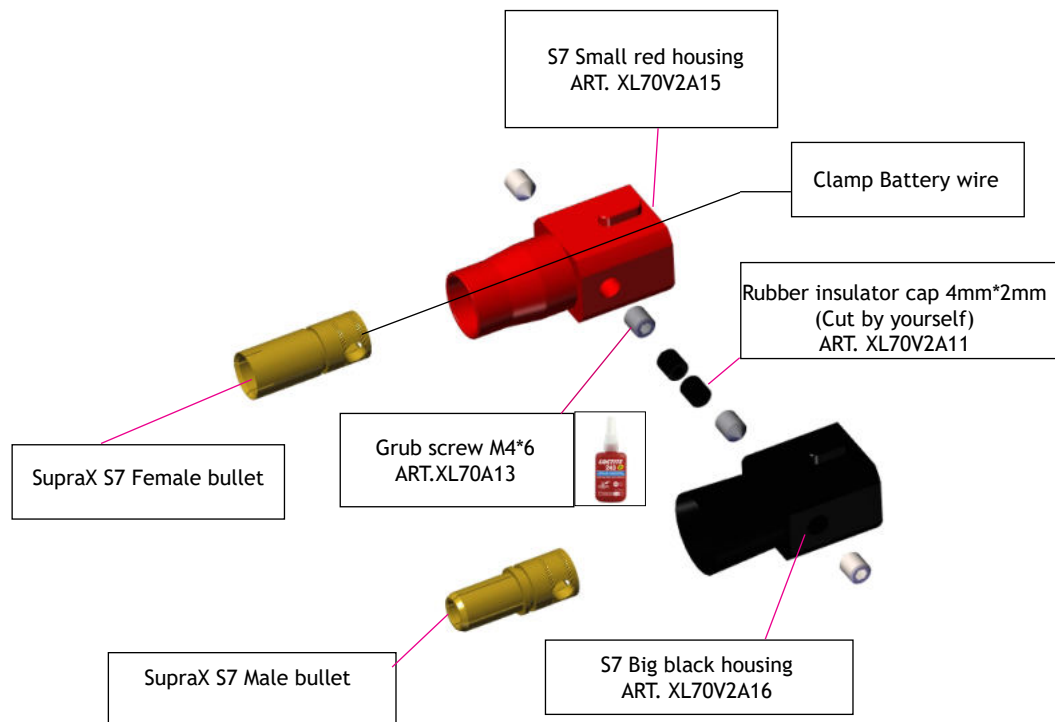


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

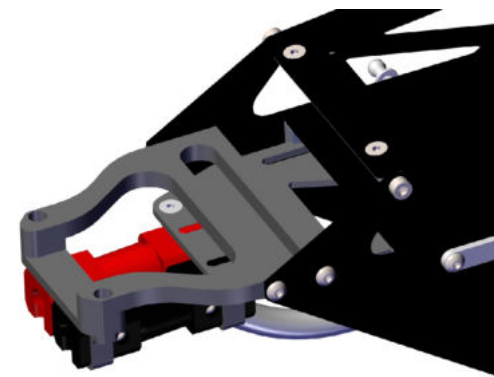




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



Make sure the connectors are fully mated before flying



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instagram:xlpowerrc

