



Length Without Main Blades: 1120mm  
Overall Height: 302mm  
Width: 196mm  
Main Gear: 106T Mod 1  
Pinion Gear: 12T (11-13T Optional)  
Motor Shaft Diameter: 5-6mm (Length 20-38mm)  
Main Gear Ratio: 8.83 (8.15 - 9.63 Optional)  
Front Tail Pulley: 60T  
Rear Tail Pulley: 13T  
Tail Ratio: 4.615  
Frame Weight With Blades: 1560g  
Main Shaft Diameter: 10mm  
Feathering Shaft Diameter: 8mm  
Tail Boom Diameter: 27mm  
Tail Belt Width: 6mm  
Main Gear Thickness: 10mm (12mm Optional)  
Battery Compartment Size: 290mm \* 53.5mm \* 60mm

Manual Release 1.2

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

# Always Follow These Rules For Safety

**NIMBUS** S50

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

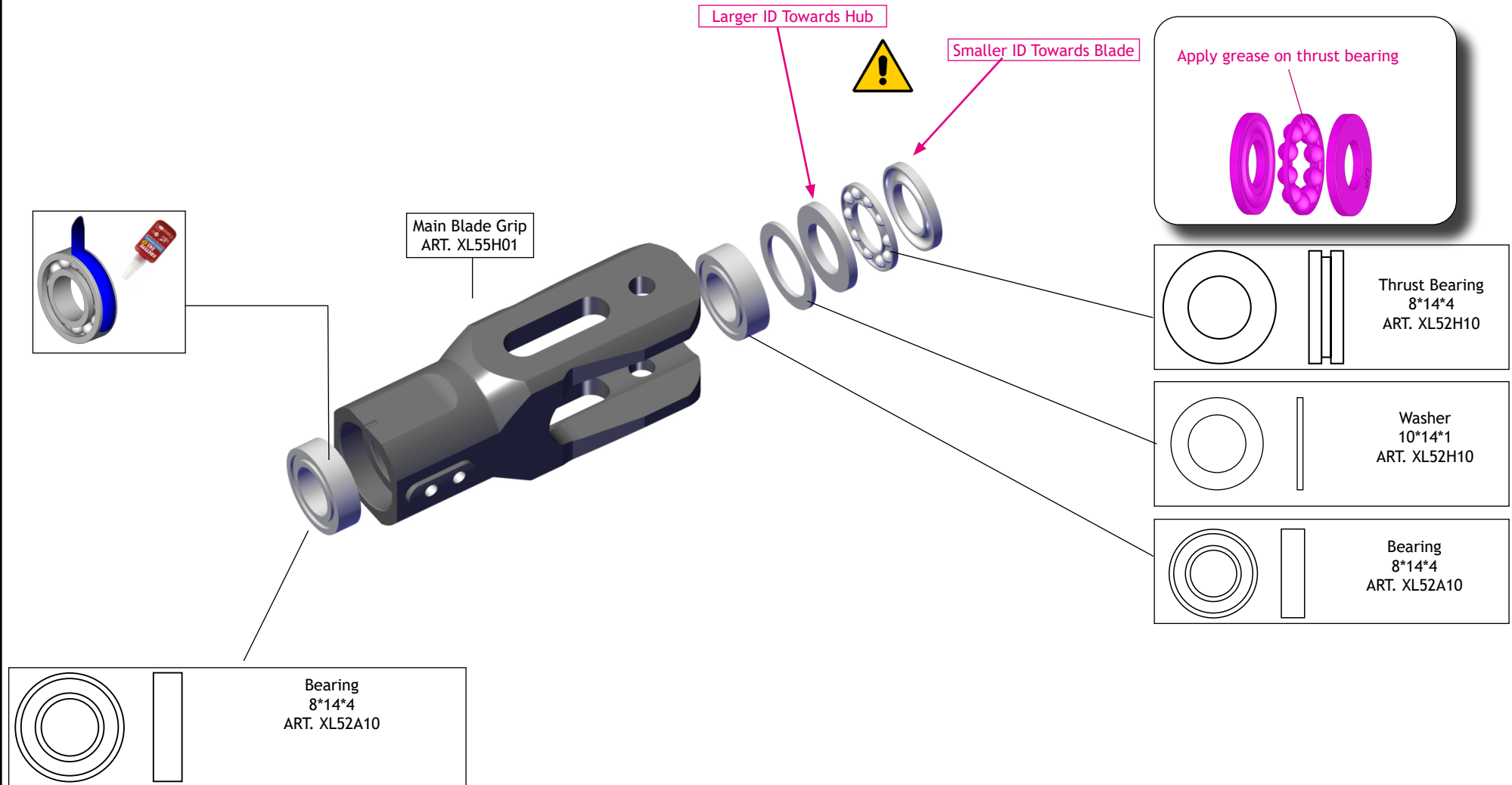
<p>Swashplate Servos: Mini Size or Standard Size (Qty. 3)</p>	<p>ESC: 100-150LV (6s-8s) 80-120HV (12s)</p>	<p>Hex Screwdriver Sizes: 1.5mm 2mm 2.5mm * 2 3mm*2</p>
<p>Tail Servo Standard Size (Qty. 1)</p>	<p>Main Blades: Carbon Fiber 520mm - 580mm</p>	<p>Where indicated, use Thread lock MEDIUM</p> 
<p>Trasmitter Receiver/Satellites Flybarless Unit</p>	<p>Tail blades: Carbon Fiber 80mm to 95mm</p>	<p>Thrust Bearing Grease</p>
<p>Battery Pack (Typical): LiPo 6s-8s 3300-5500mAh or LiPo 12s 2600-3300mAh</p>	<p>Motor: 4020-4035 900kv-1200kv (6s-8s) 4020-4035 500kv-550kv (12s)</p>	<p>Pitch Gauge</p>

# Bag1



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

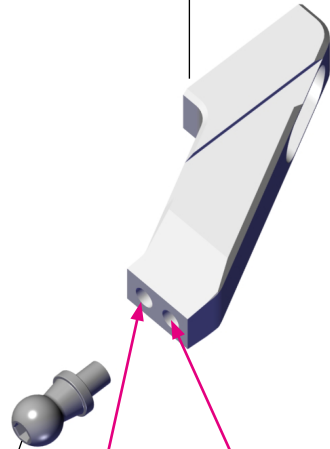
# NIMBUS 550





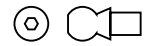
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Main Blade Grip Arm  
ART. XL55H02

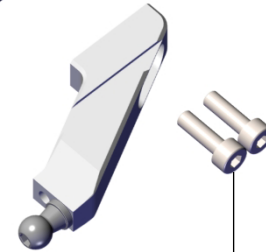
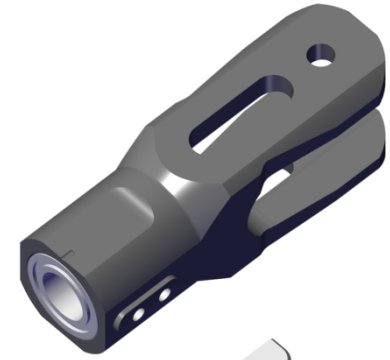


Inner hole for agile

Outer hole for stable



Ball 4.72mm M2.5\*3  
ART. XL52A01



Hex screw  
M2.5\*8  
ART. MSH71111





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

## Head Dampeners



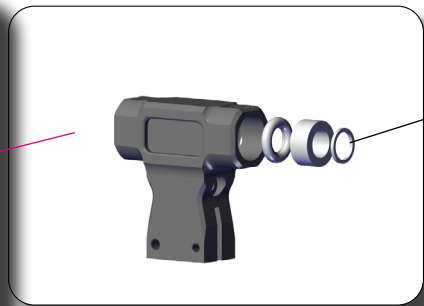
ART. XL52H14  
Sport / 3D  
(70° O-Ring)

Included in kit



ART. XL52H14-1  
For both low HS and Hardcore 3D  
(POM with 70° O-Ring)

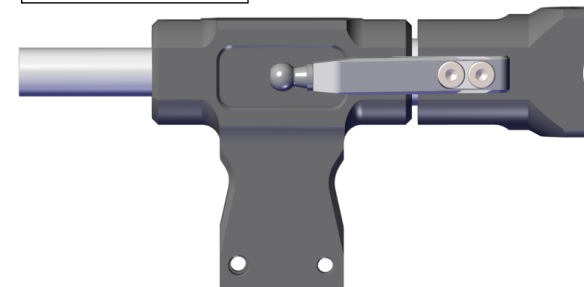
Optional



POM Damper set includes standard washer to replace special washer



Pay attention to the direction

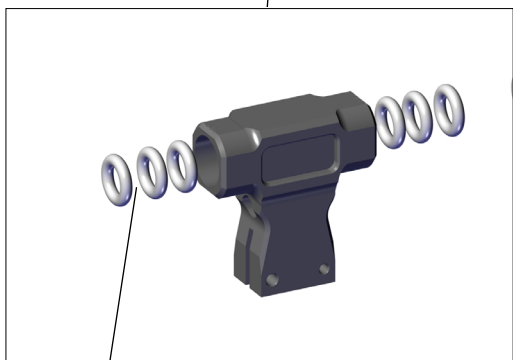


Special Washer  
ART. XL52H14

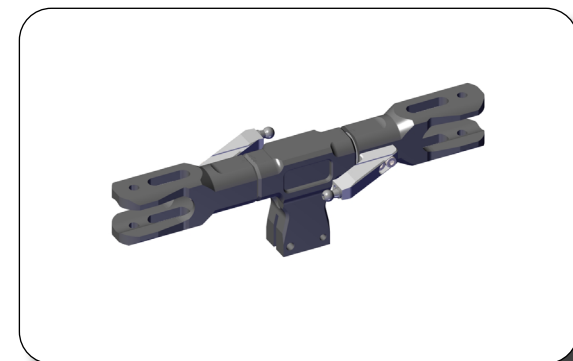
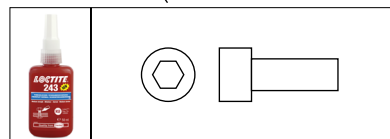
M5 Washer  
ART. XL52H06

Spindle  
ART. XL52H06

Main Rotor Hub  
ART. XL52H01

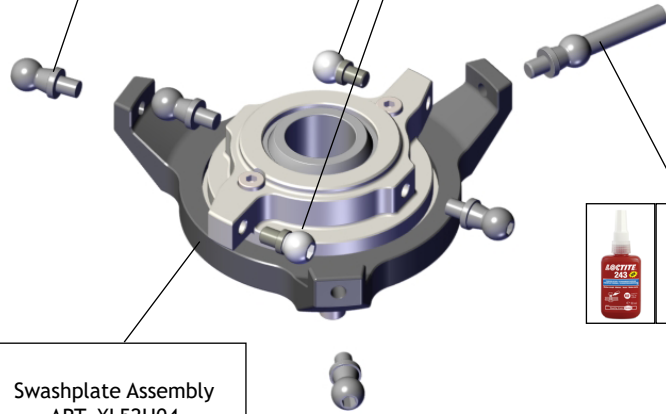
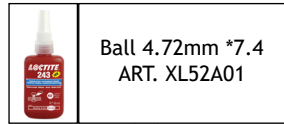
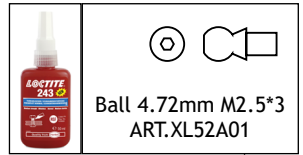


Apply silicone grease on the damper and Spindle

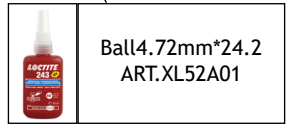




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



Swashplate Assembly  
ART. XL52H04

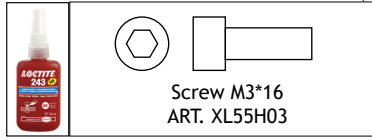
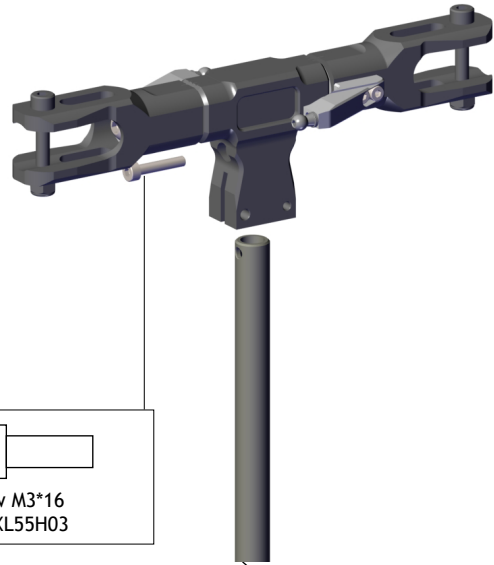


# Bag1+Bag2



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

# NIMBUS 550



Screw M3\*16  
ART. XL55H03

Nimbus Main Shaft  
ART. XL55H03



Short Hole Distance  
Towards Rotorhead



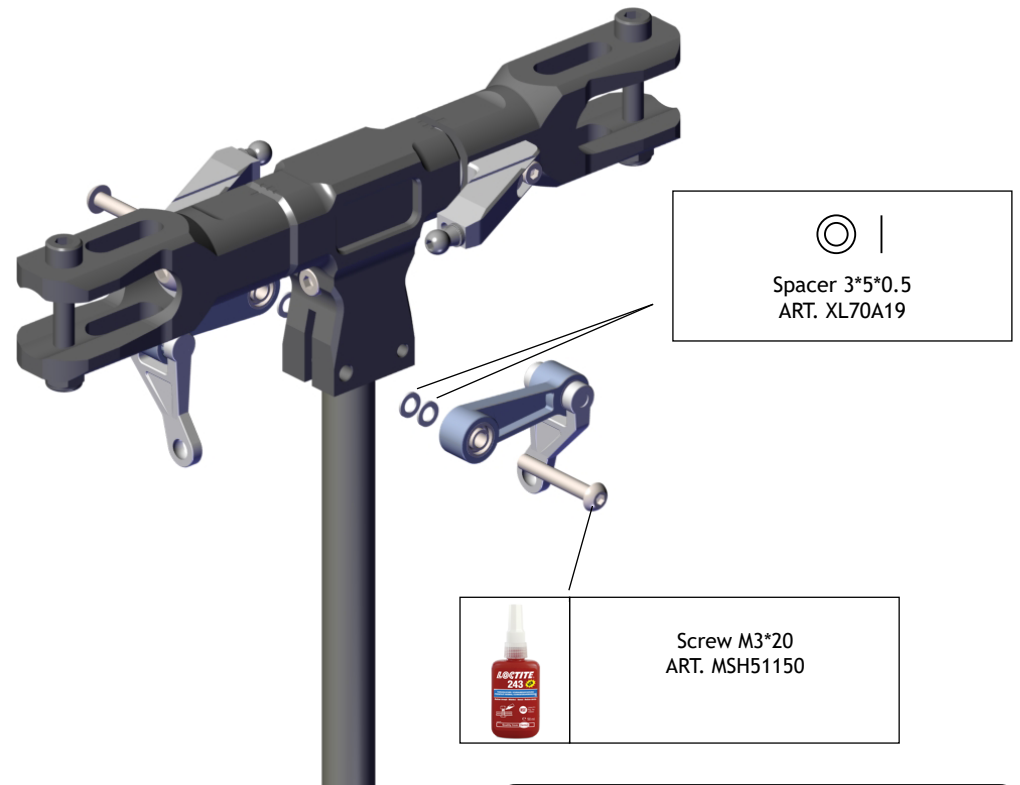
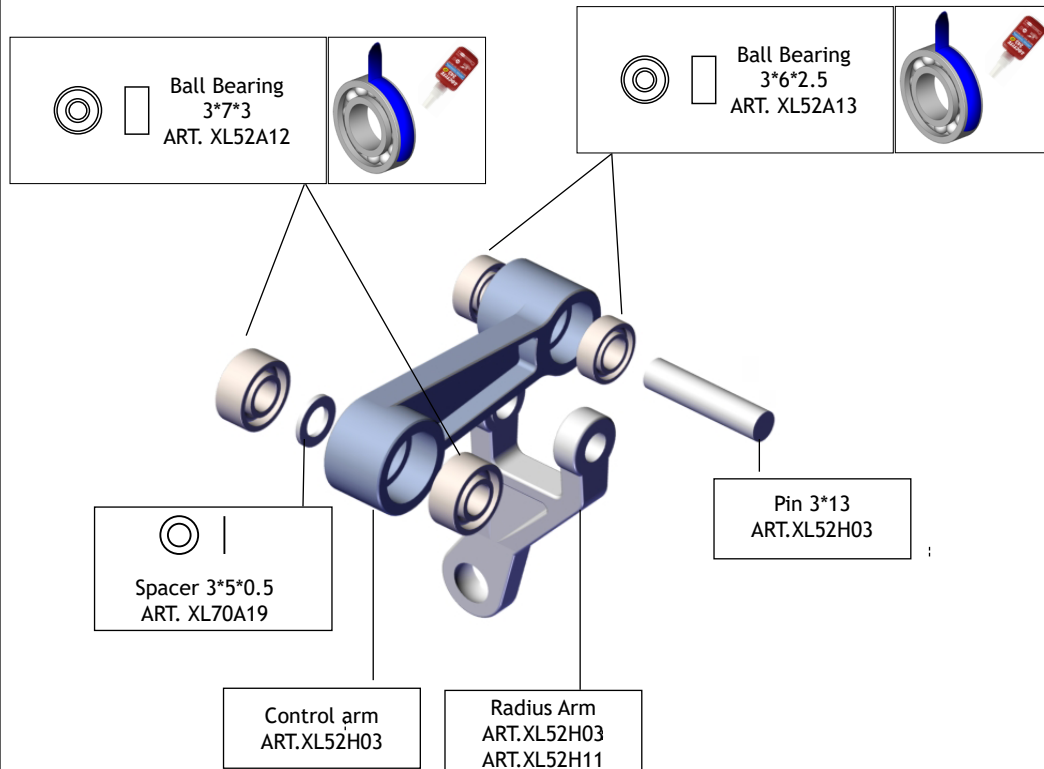


# Bag1



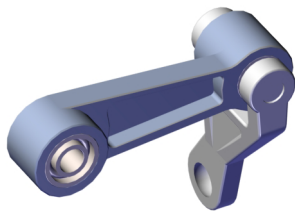
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

# NIMBUS 550



## 2X

Pre Assembled

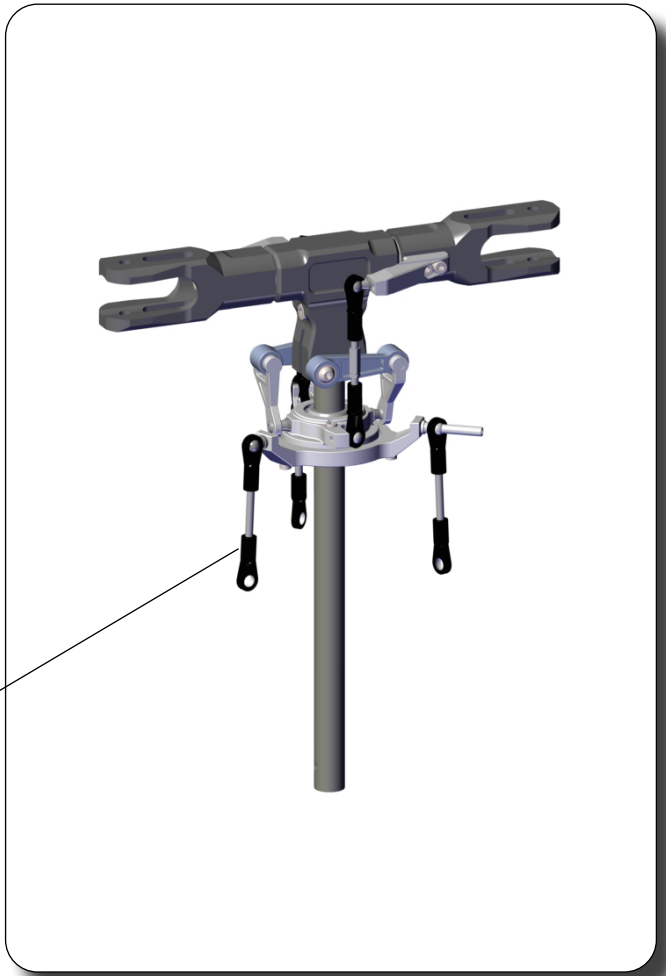
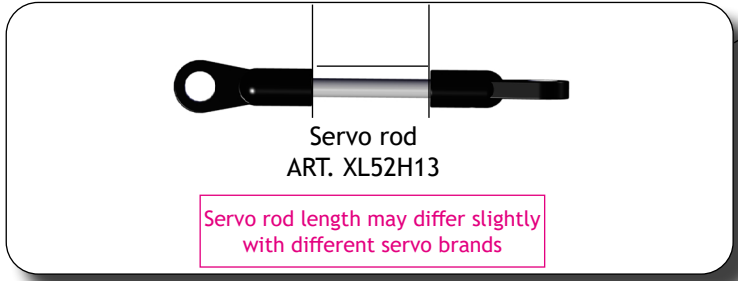
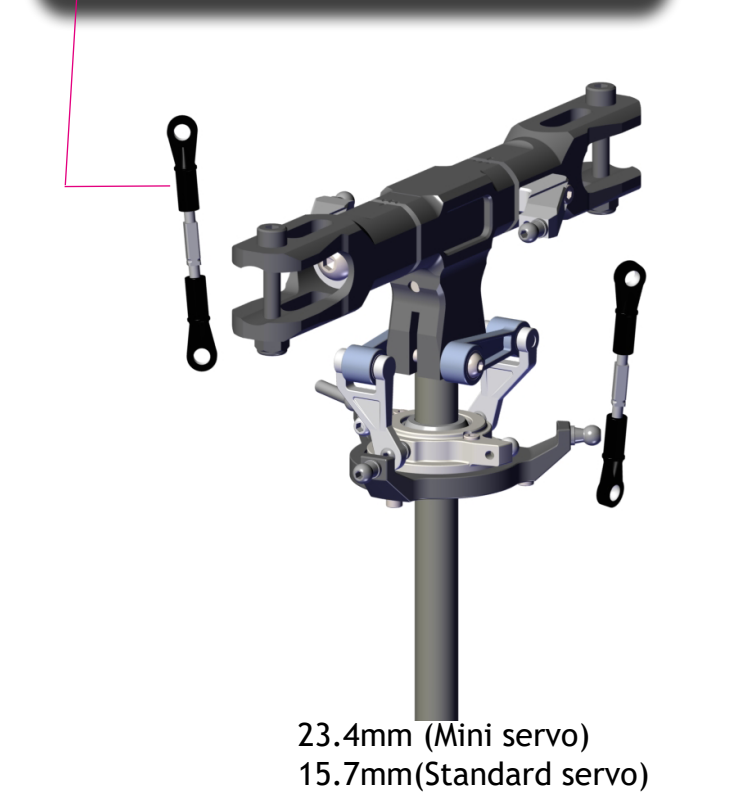
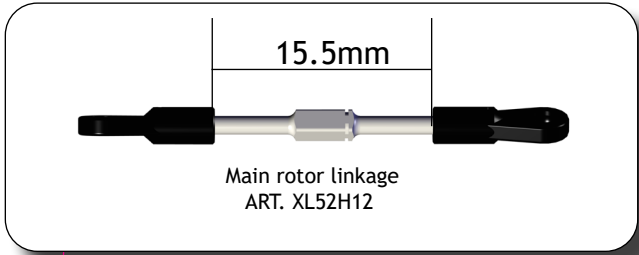
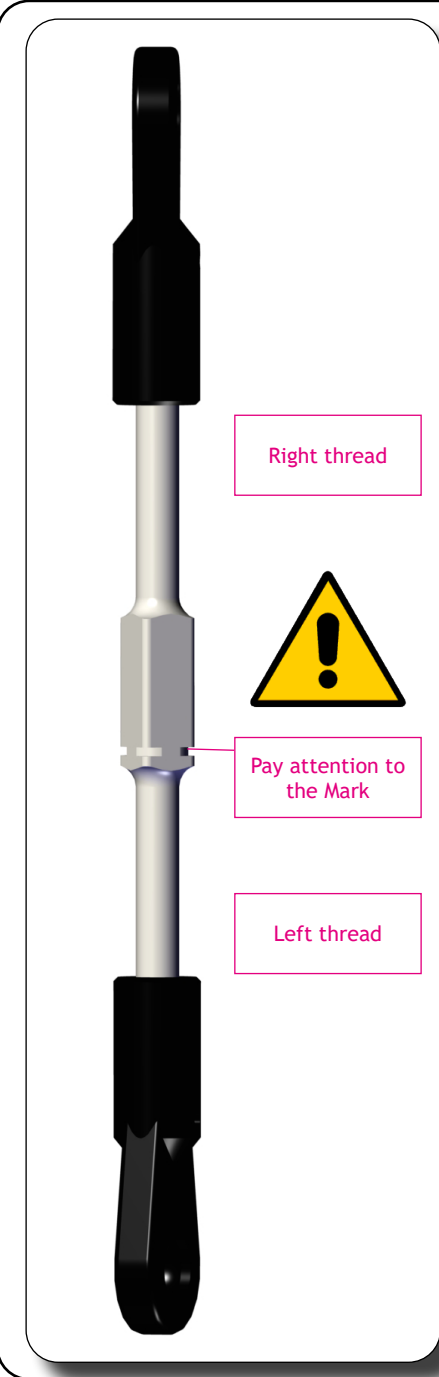


# Bag 1



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

# NIMBUS 550



# Bag3+Bag4



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

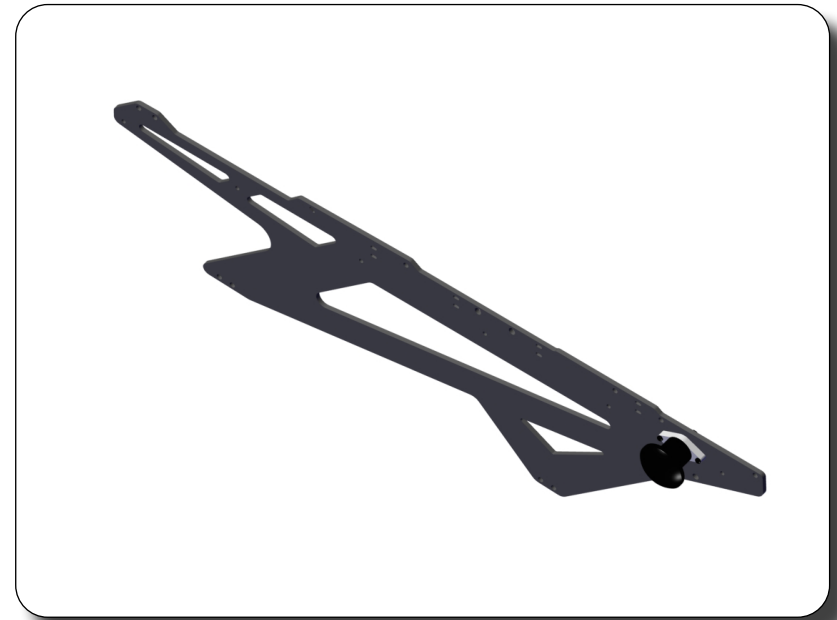
# NIMBUS 550

Quick Release Battery System  
ART. XL55B03



Lower Carbon Frame  
ART.XL55B02

Flat head screw M2.5\*6  
ART. XL55A02



# Bag3+Bag4

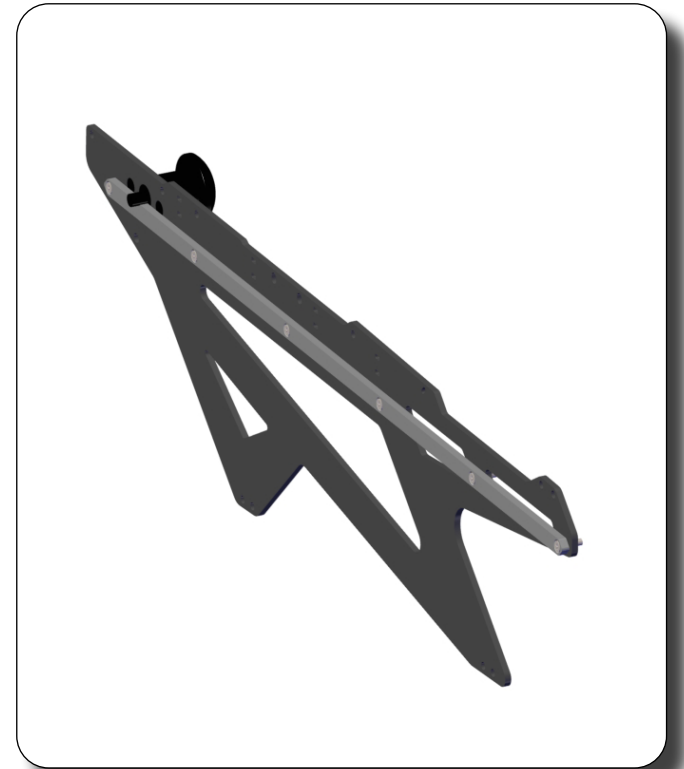
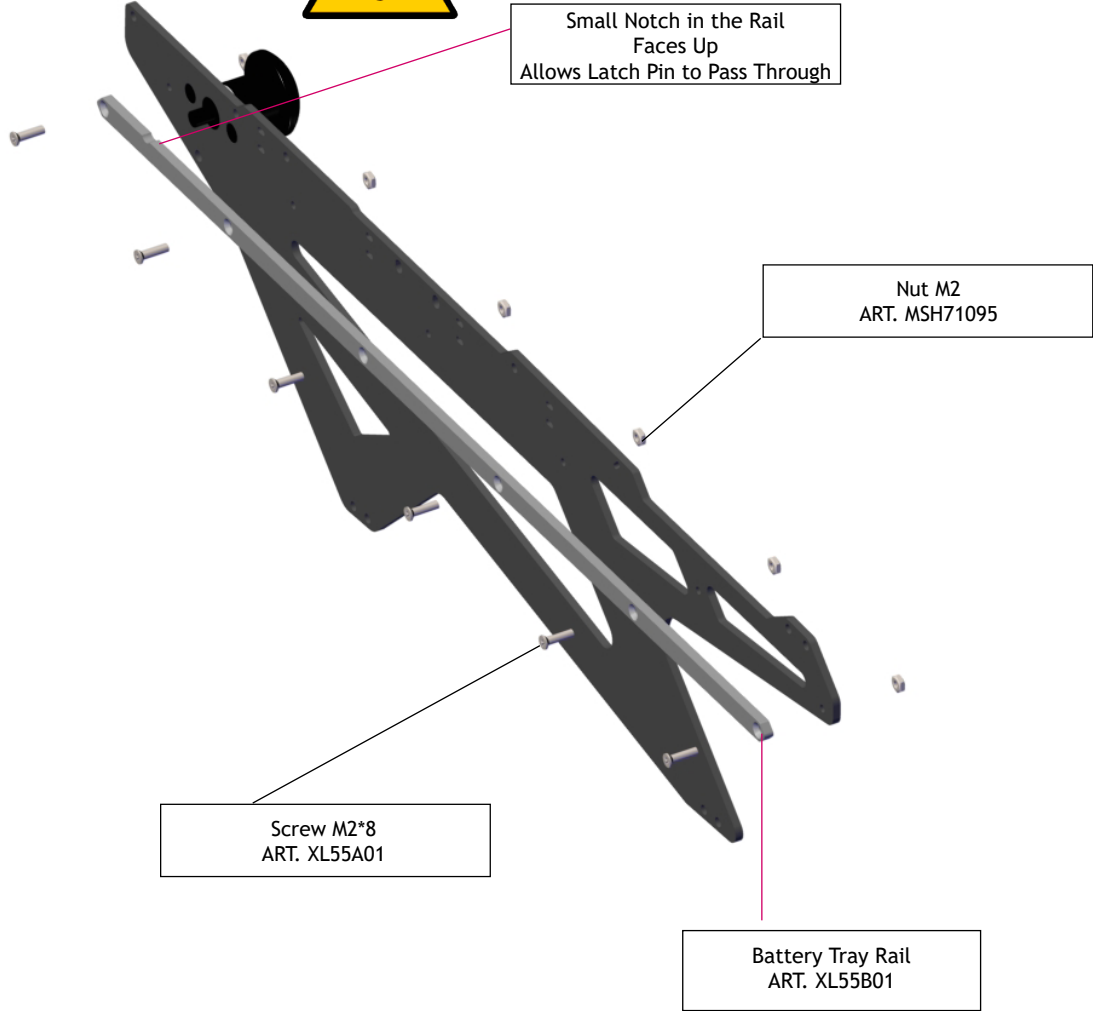


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

# NIMBUS 550



Small Notch in the Rail  
Faces Up  
Allows Latch Pin to Pass Through

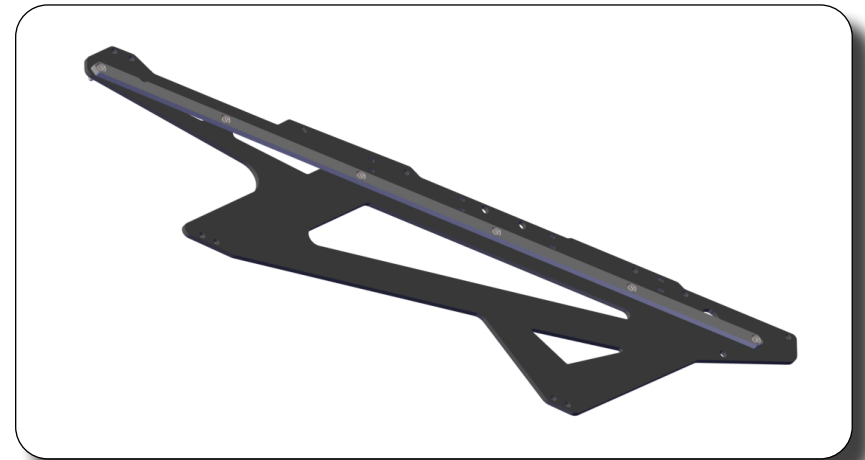
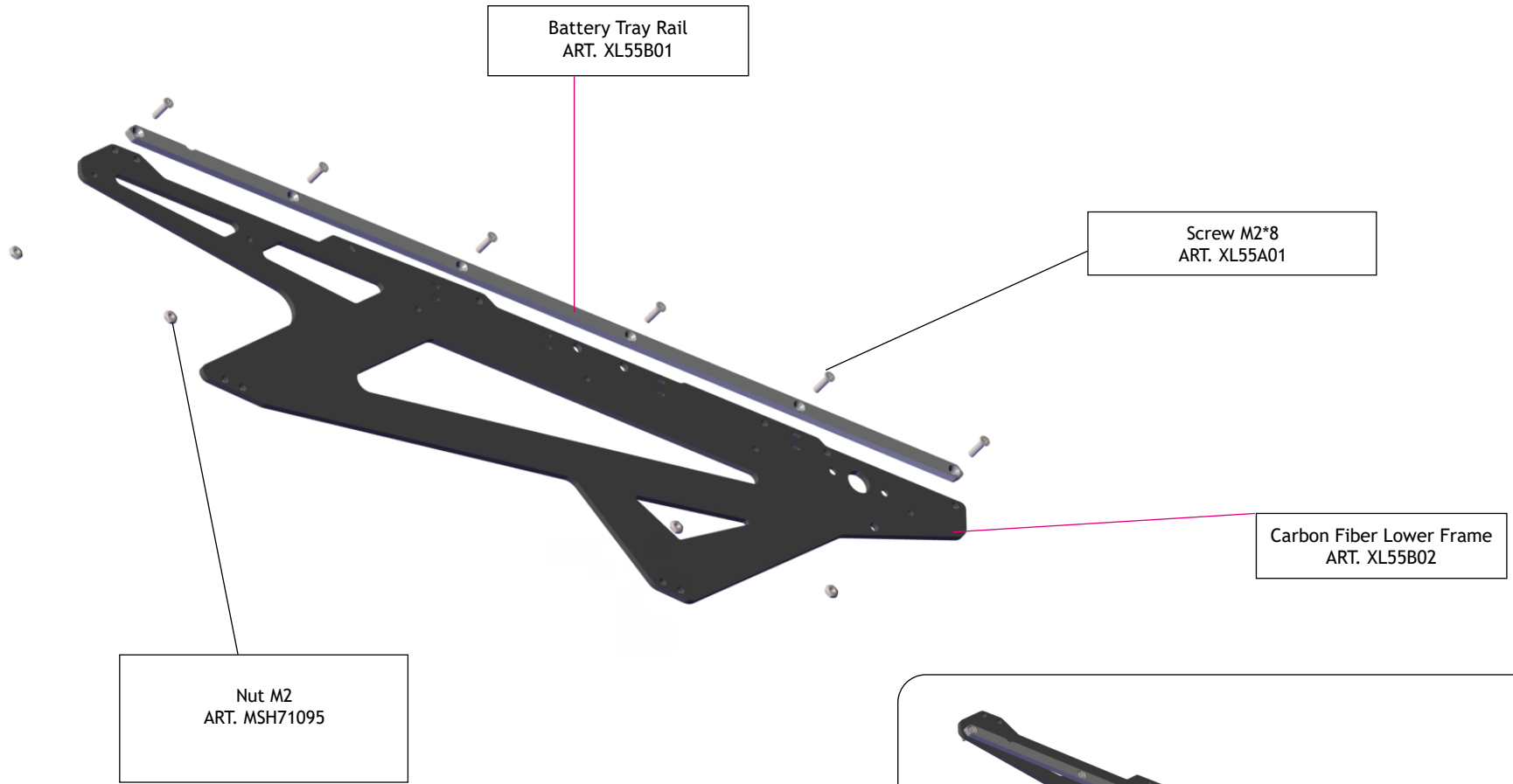


# Bag3+Bag4



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

# NIMBUS 550

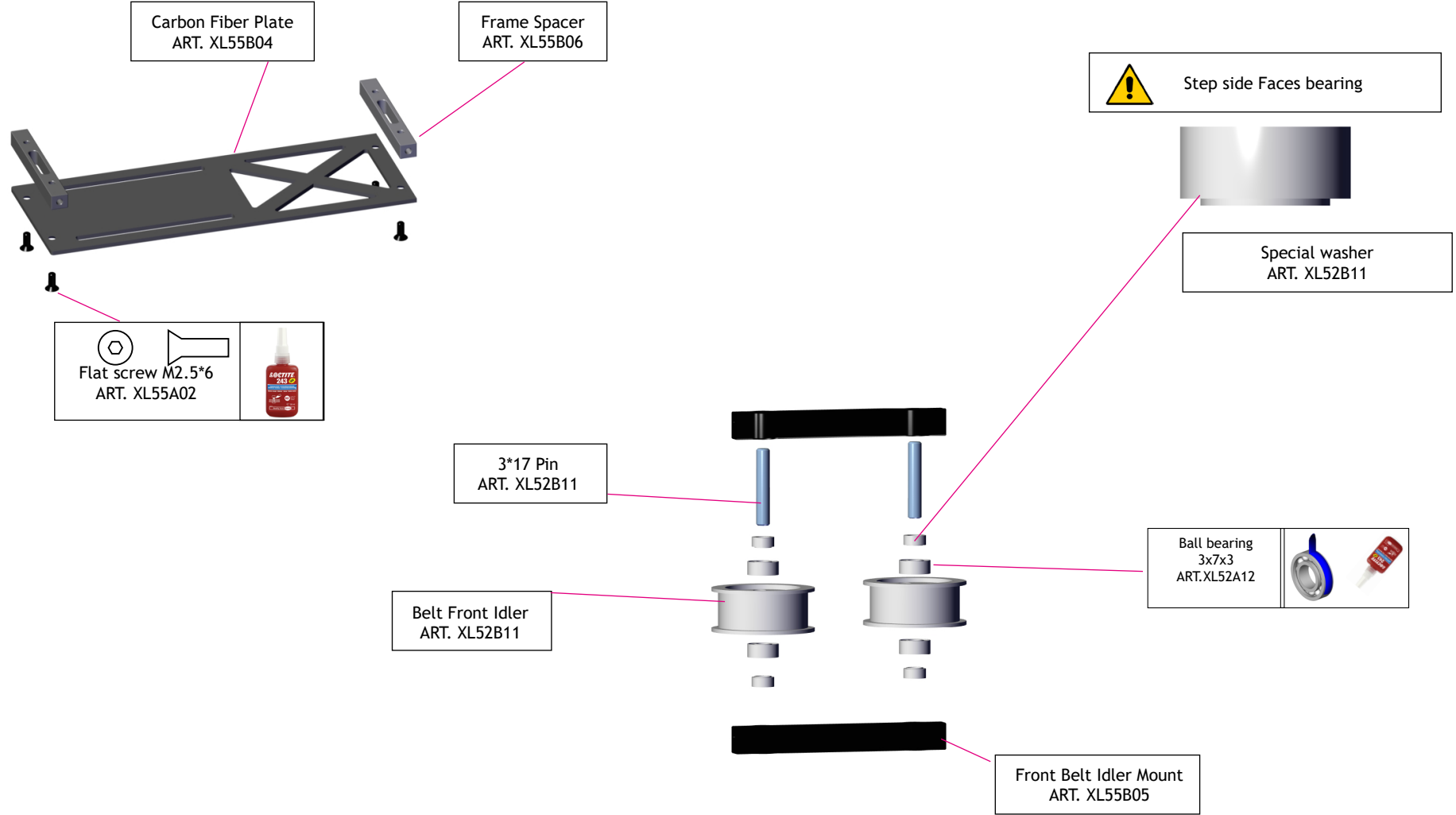


# Bag3+Bag4



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

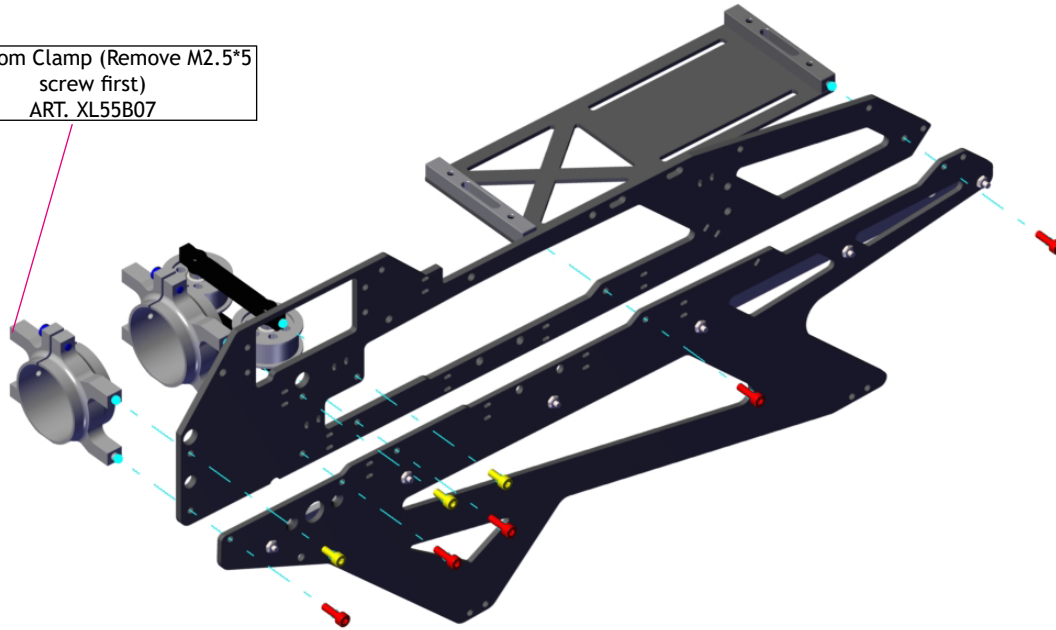
# NIMBUS 550





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

Tail Boom Clamp (Remove M2.5\*5 screw first)  
ART. XL55B07



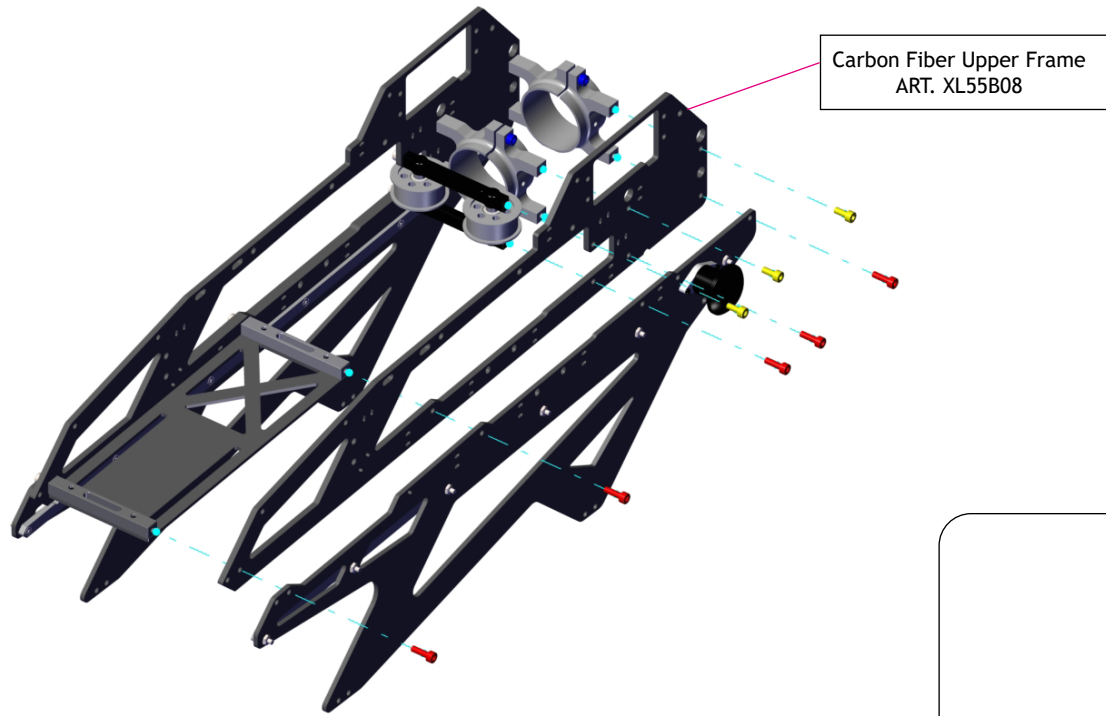
View from back side

	Hex screw M2.5*6 (yellow in picture) ART. MSH71110
	Hex screw M2.5*8 (Red in picture) ART. MSH71111





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



Carbon Fiber Upper Frame  
ART. XL55B08



Hex screw  
M2.5\*6 (yellow in picture)  
ART. MSH71110



Hex screw  
M2.5\*8 (Red in picture)  
ART. MSH71111



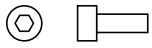





Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

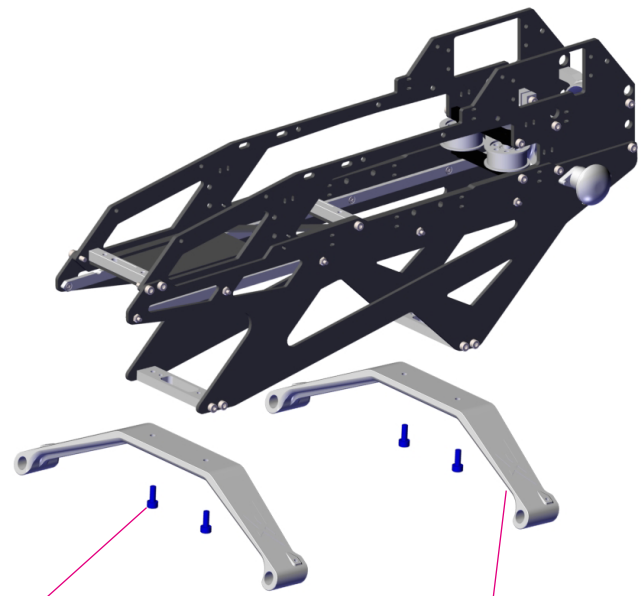
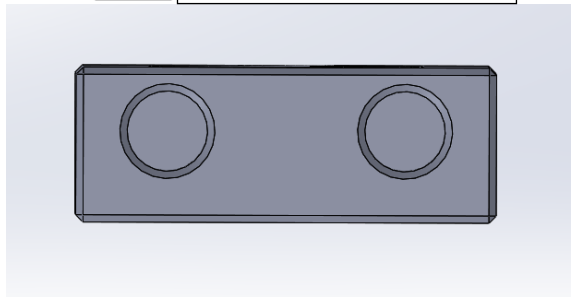


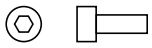
Landing Gear Mount  
ART. XL55B09


  
 Hex screw M2.5\*6  
 ART.MSH71110




View from side



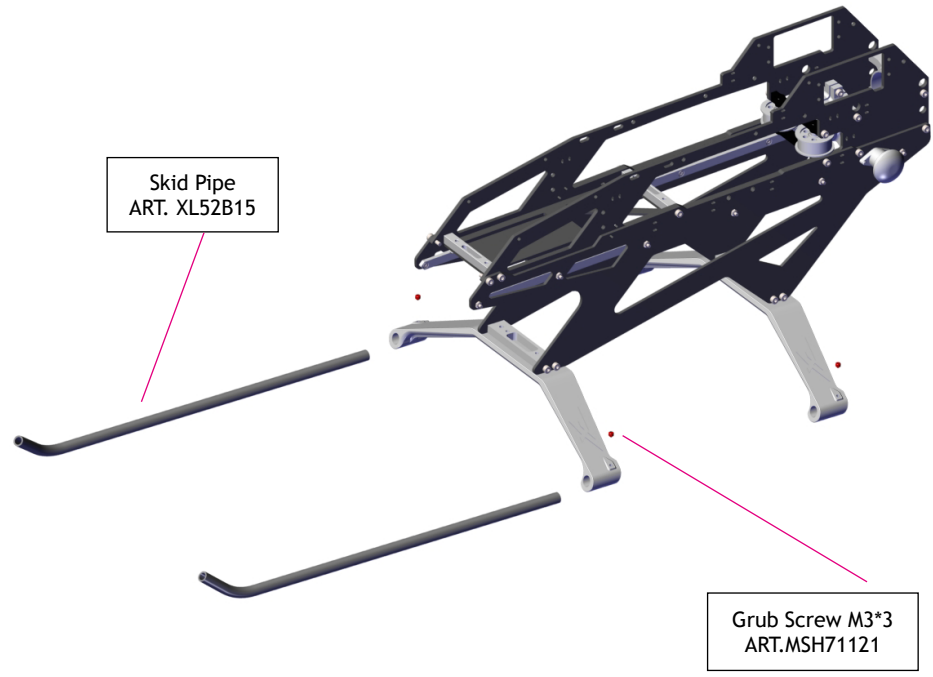
  
 Hex screw M3\*8  
 ART.MSH71109



Landing Gear Strut  
ART. XL55B10  
Option: XL55B10-1



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

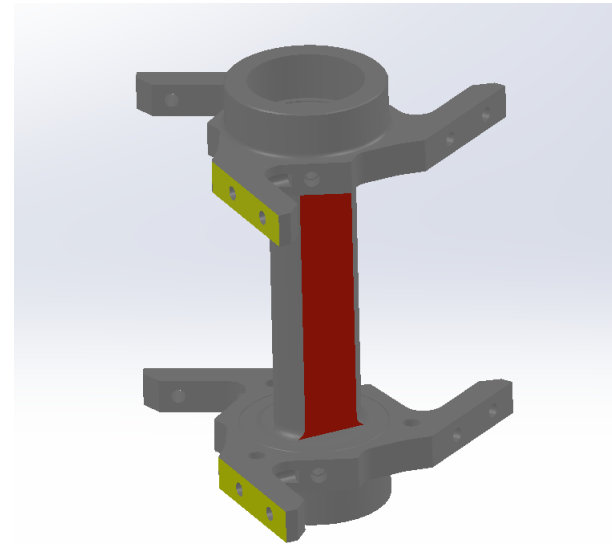
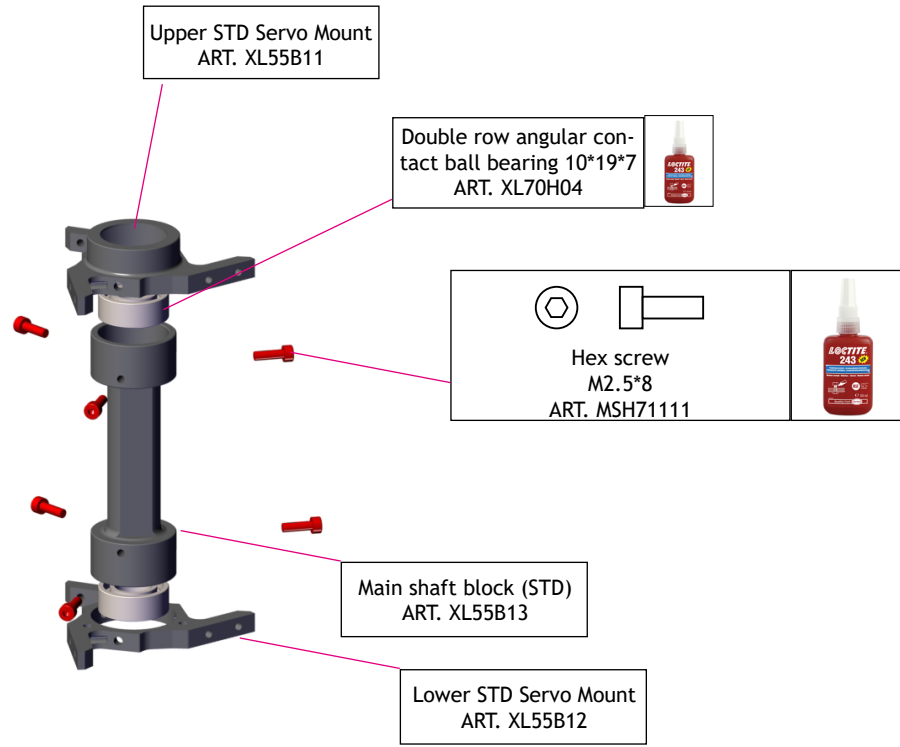


# Bag6 (XL55V2K02)

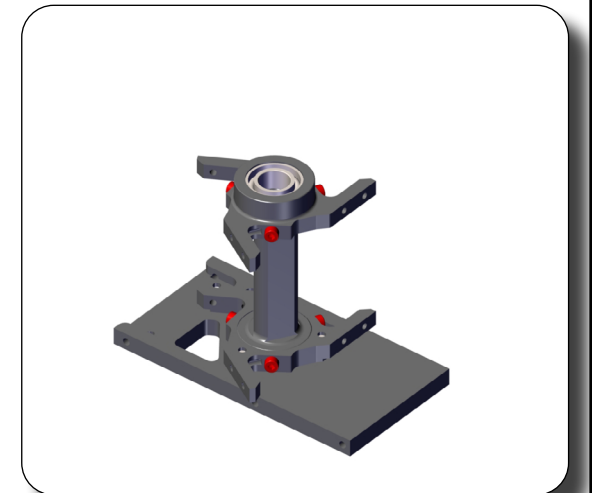
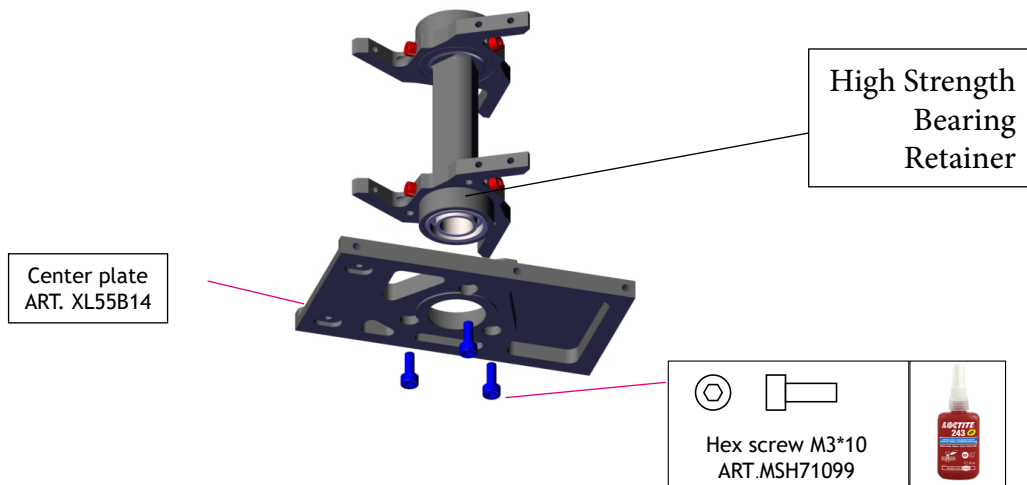


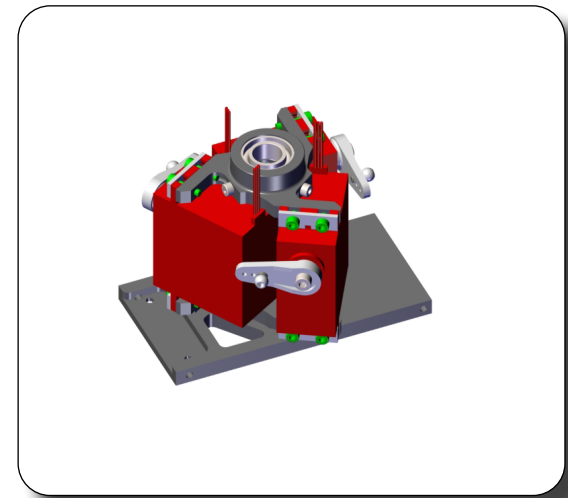
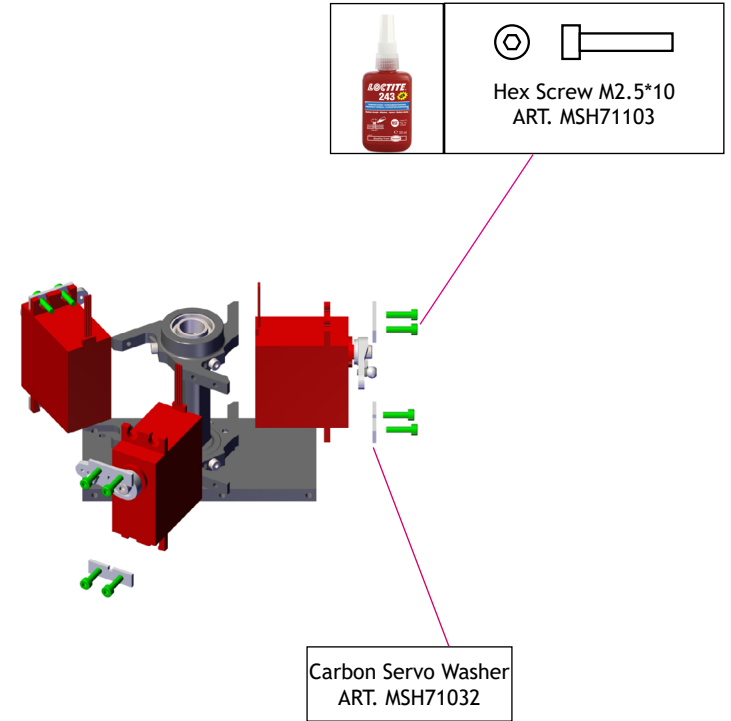
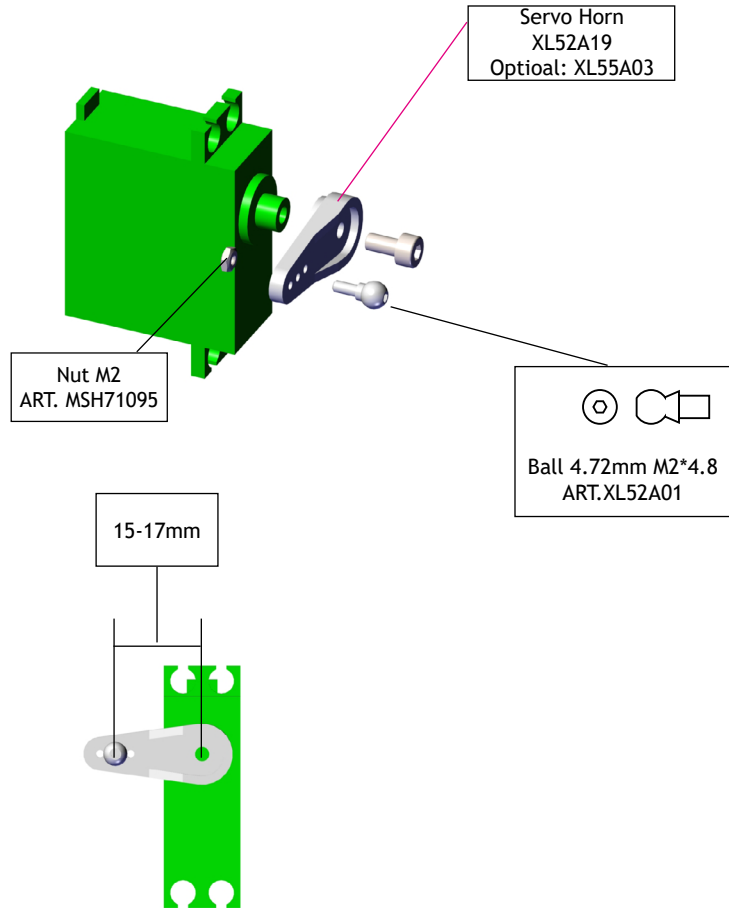
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

# NIMBUS 550



Yellow surfaces should be parallel to each other and perpendicular to red surface to allow servo to fit properly without binding





# Bag6 (XL55V2K01)



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

# NIMBUS 550

Upper Mini Servo Mount  
ART. XL55B11-1

Double row angular contact ball bearing 10\*19\*7  
ART. XL70H04



Hex screw  
M2.5\*8  
ART. MSH71111

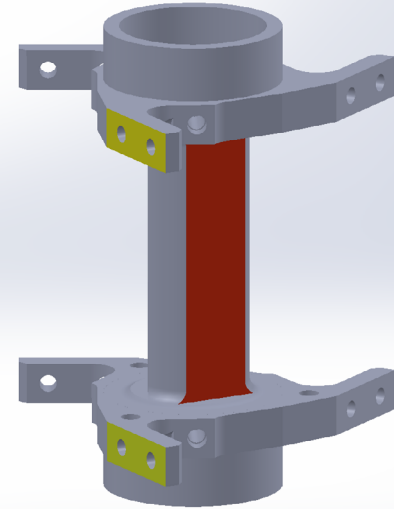


Main shaft block (Mini)  
ART. XL55B13-1

Lower Mini Servo Mount  
ART. XL55B12-1



Yellow surfaces should be parallel to each other and perpendicular to red surface to allow servo to fit properly without binding

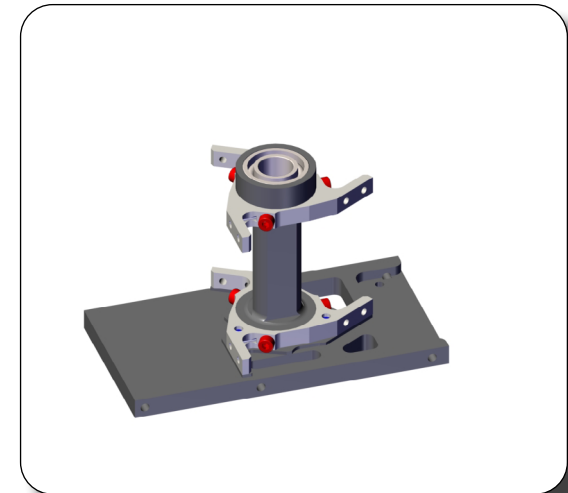


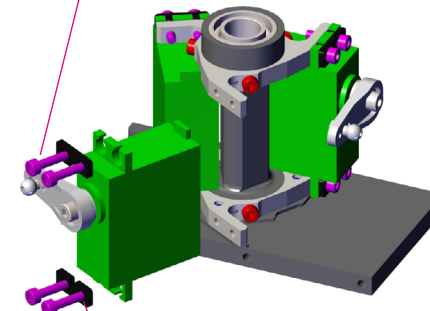
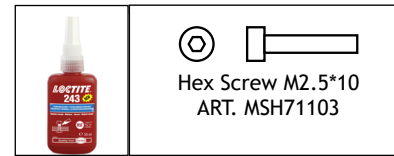
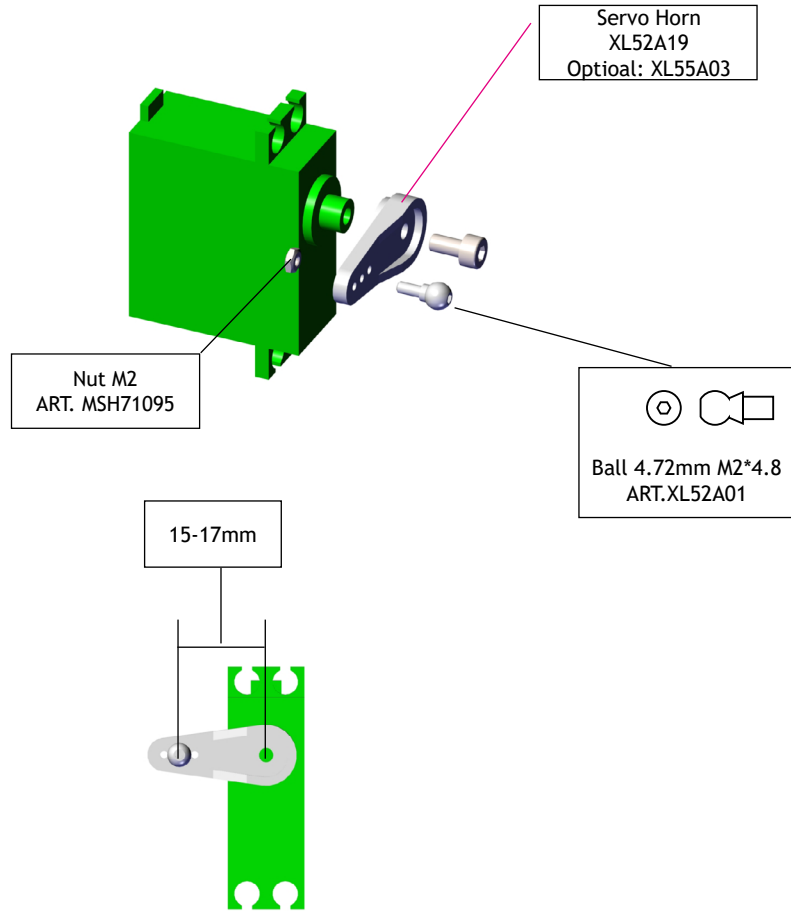
Center plate  
ART. XL55B14

High Strength Bearing Retainer

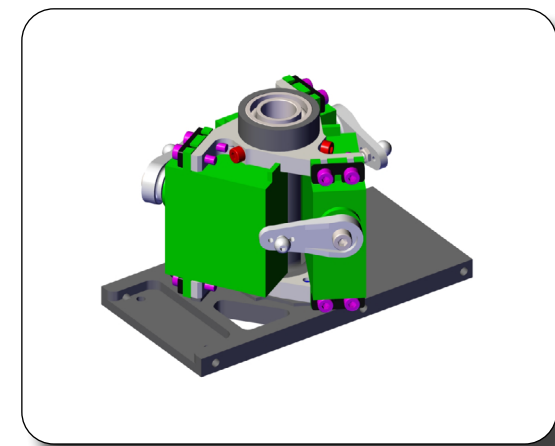


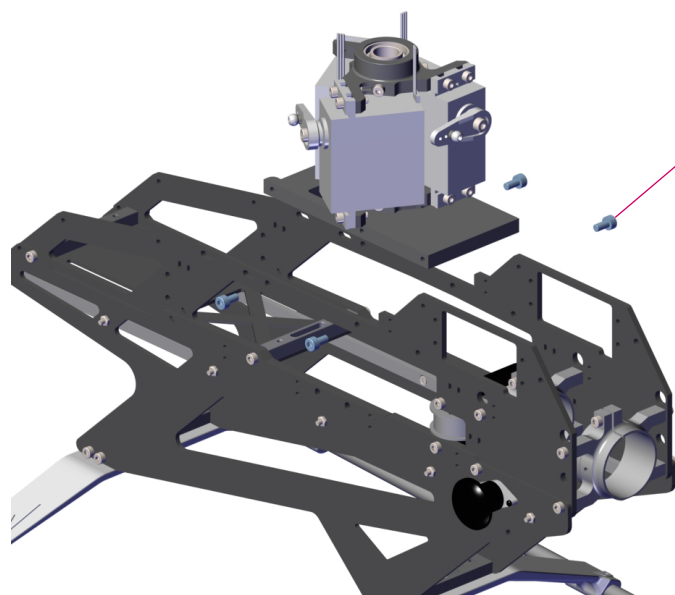
Hex screw M3\*10  
ART. MSH71099





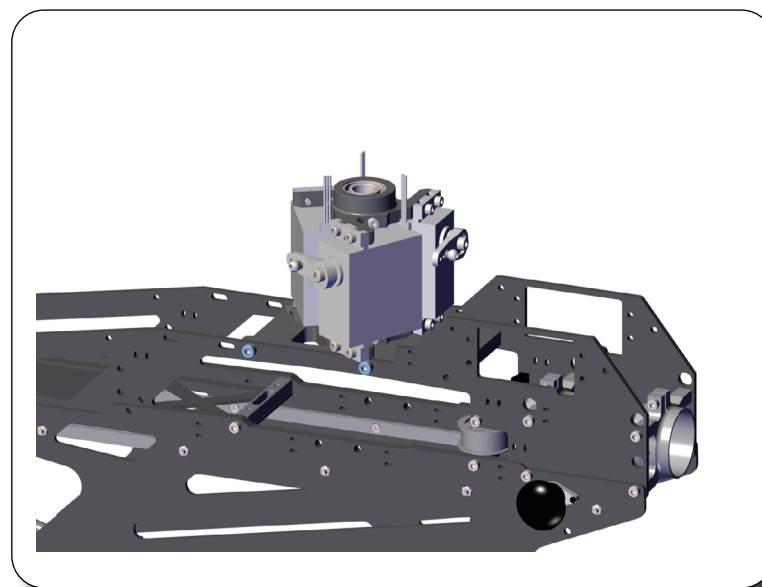


Carbon Servo Washer  
ART. XL52A04



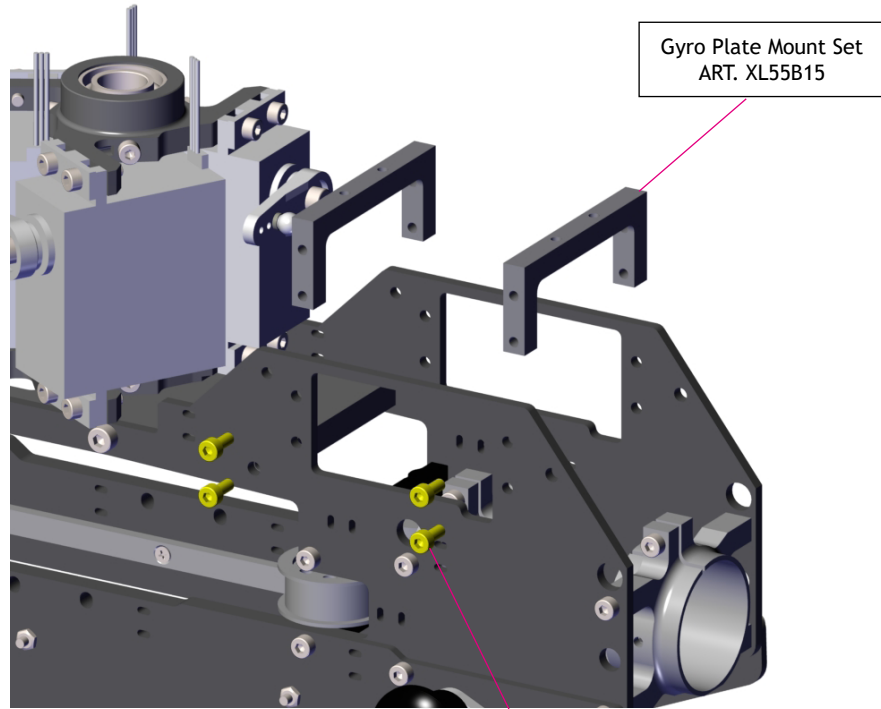


	 Hex screw M3*6 ART. MSH71108
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



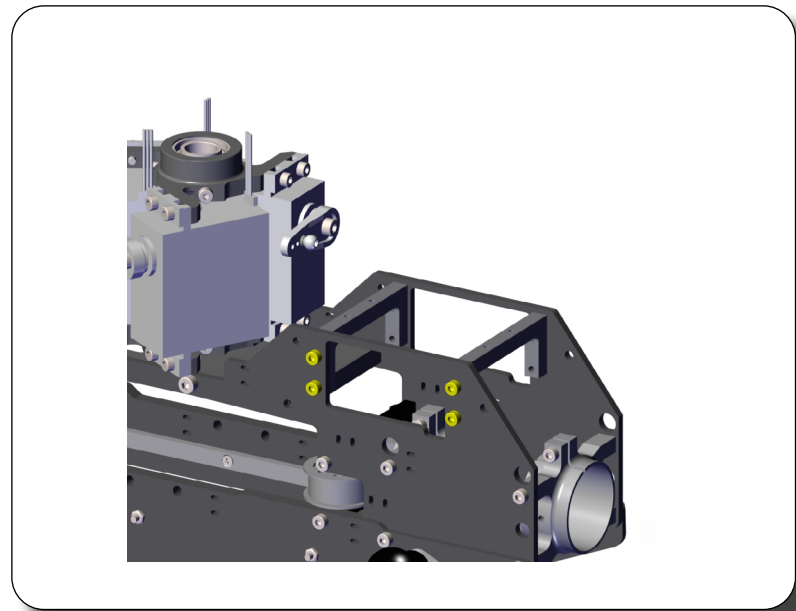


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



Gyro Plate Mount Set  
ART. XL55B15

		
<p>Hex screw M2.5*6 ART.MSH71110</p>		







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

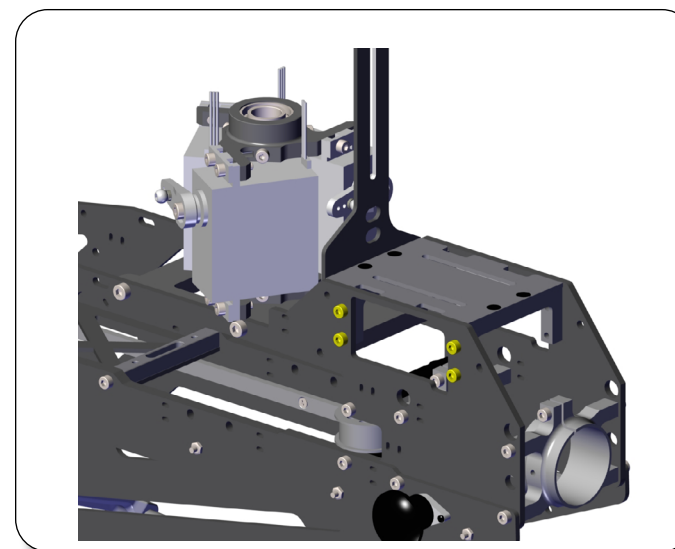
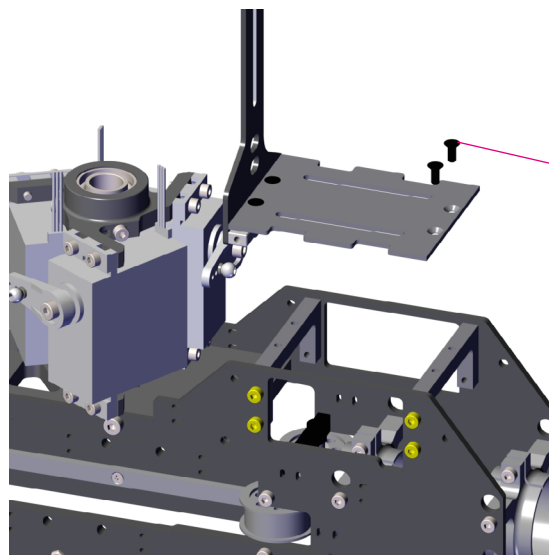
Anti-Rotation Bracket  
ART. XL55B17

Gyro Plate  
ART. XL55B16

Anti-Rotation Bracket Mount  
ART. XL52B08

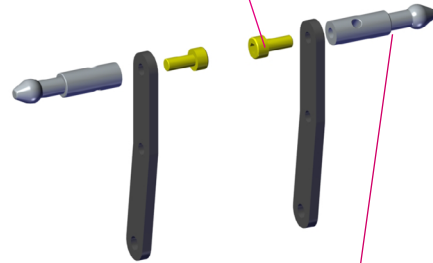
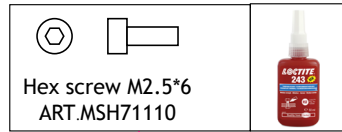
Flat screw M2.5\*6  
ART. XL55A02

Flat screw M2.5\*6  
ART. XL55A02

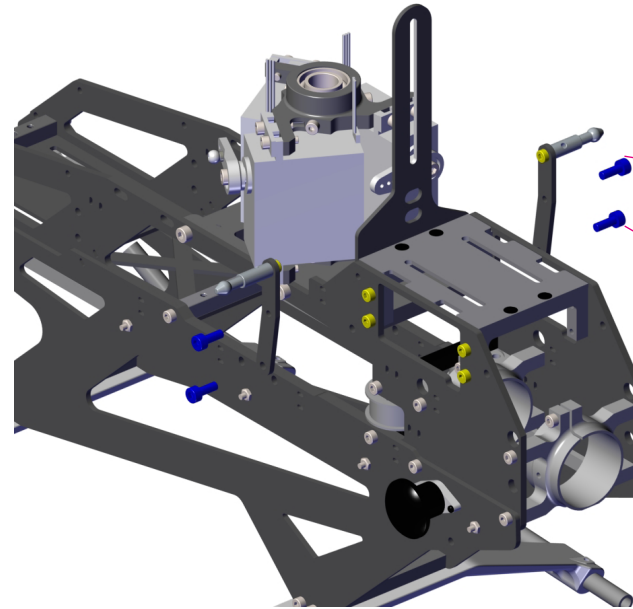
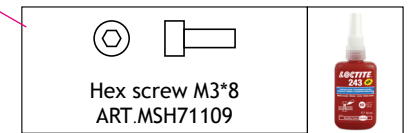
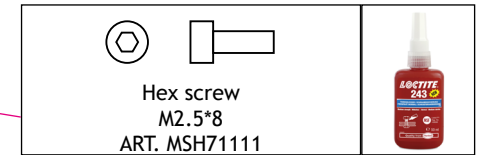




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Canopy Mount (Rear)  
ART. XL55B18

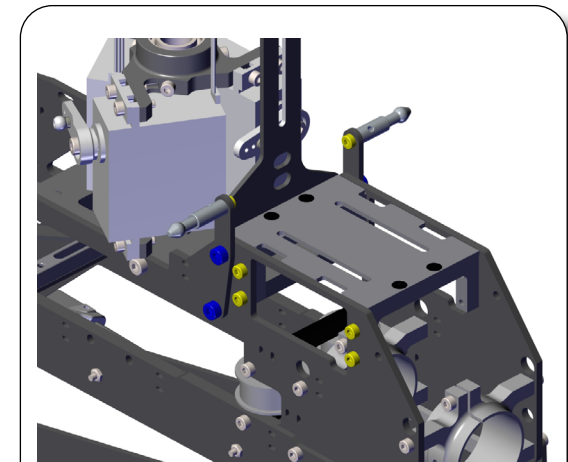


Note the Orientation



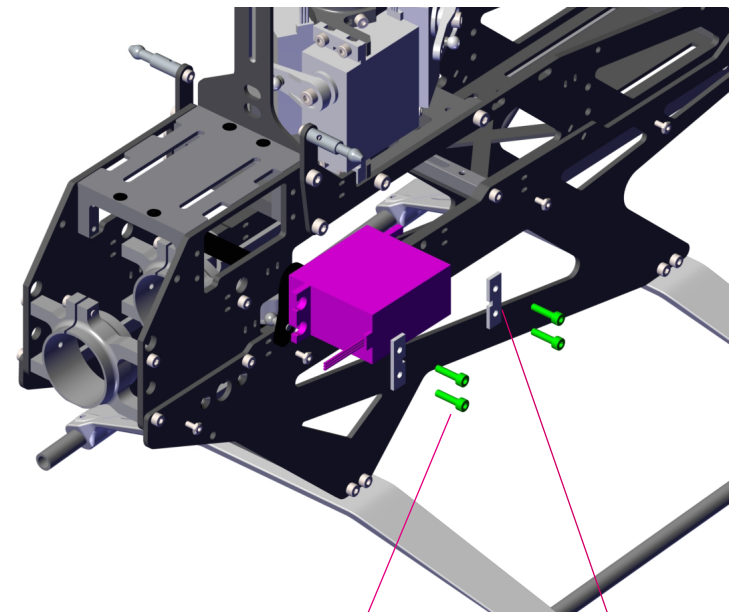
M3 Hole Down  
Towards Front  
of Heli

M2.5 Hole Up  
Towards Rear  
of Heli




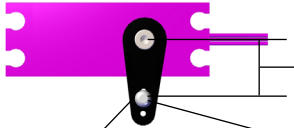




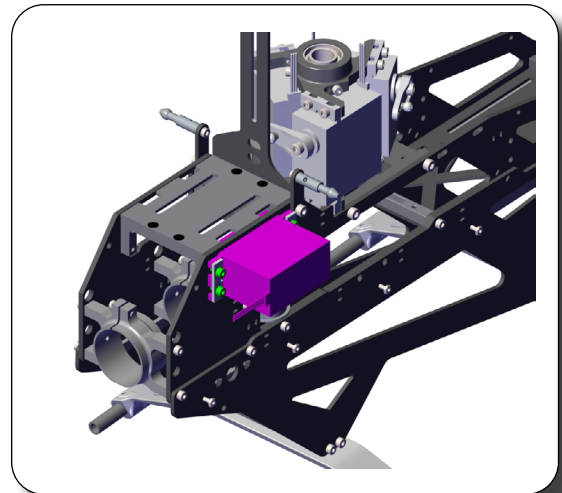
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



	 
	Hex Screw M2.5*10 ART. MSH71103




Carbon Servo Washer  
ART. MSH71032

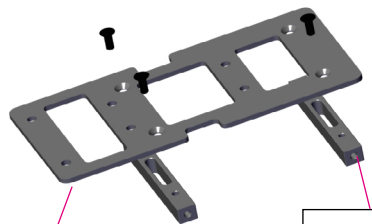
Front 		10-14mm Depends on servo resolution. Choose hole for optimal endpoints in FBL
Nut M2 ART. MSH71095	 	Ball 4.72mm M2*4.8 ART. XL52A01








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

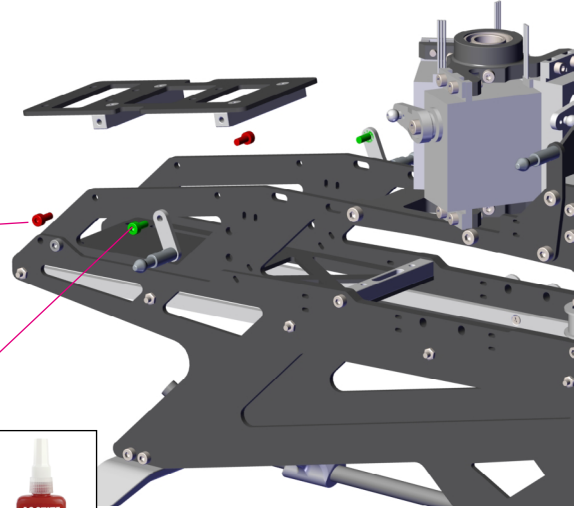
		
Flat screw M2.5*6 ART. XL55A02		









ESC Plate  
ART. XL55B20

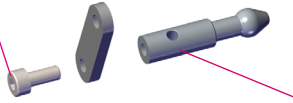
ESC Plate Mount Set  
ART. XL55B06

		
Hex screw M2.5*6 ART. MSH71110		

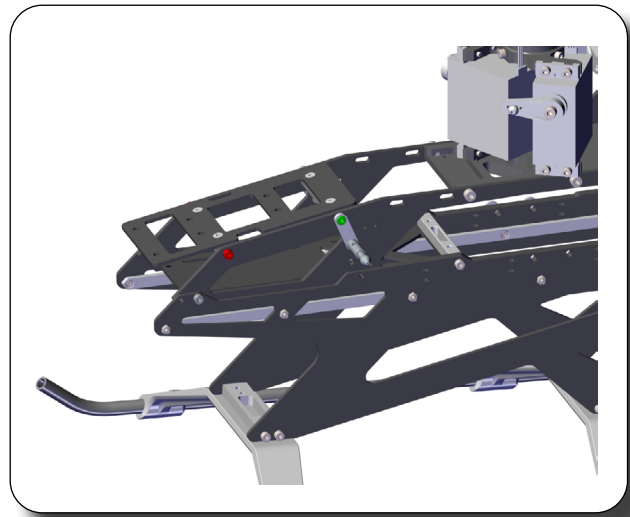


		
Hex screw M2.5*8 ART. MSH71111		

		
Hex screw M2.5*6 ART. MSH71110		



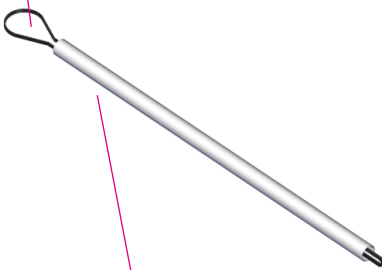
Canopy Mount (Front)  
ART. XL55B19



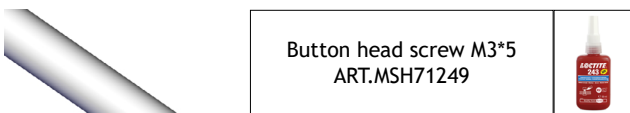
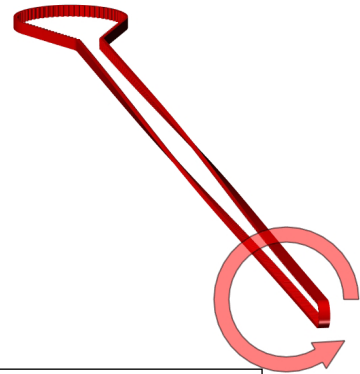


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

Tail Belt 550  
ART. XL52T24



Tail Boom  
ART. XL55T01



Button head screw M3\*5  
ART. MSH71249

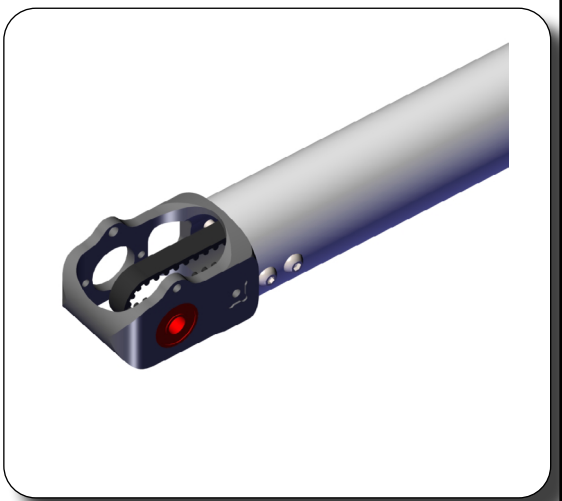
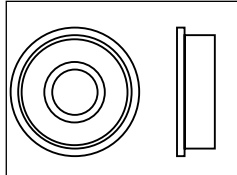


Tail Case  
ART. XL55T02



High Strength  
Bearing  
Retainer

Ball Bearing  
5x13x4 Flanged  
ART. XL55A04





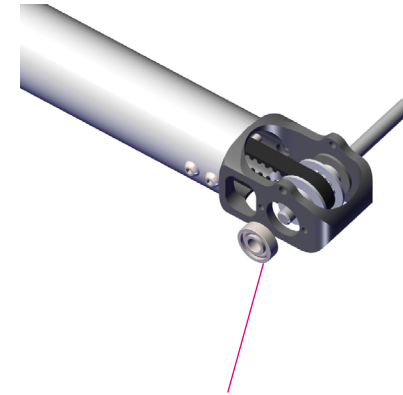
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

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

Grub screw M3\*3  
ART.MSH41133

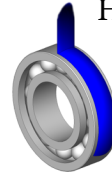


Pay attention to shaft orientation

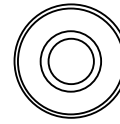


Tail Pulley 13T  
ART. XL52T16

Tail Shaft (if you have new tapered tail shaft pls check next page)  
ART. XL52T15



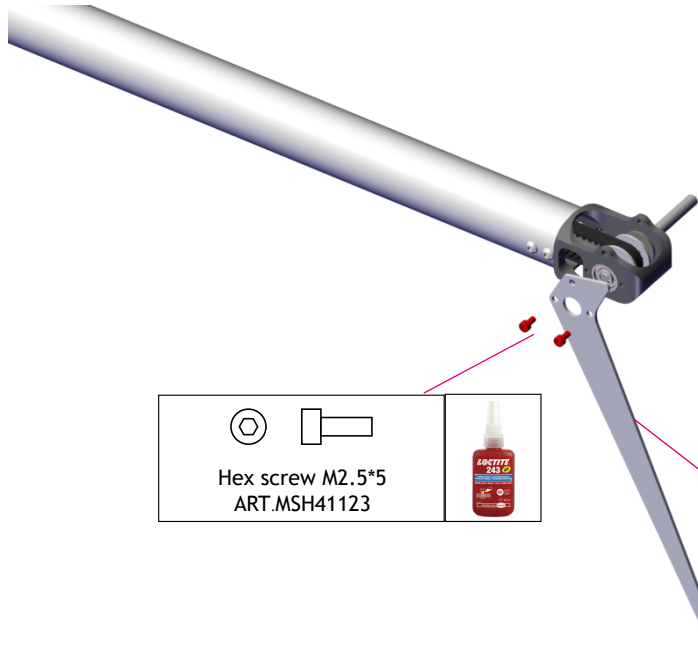
High Strength Bearing Retainer



Ball bearing 5\*13\*4  
ART. XL55A04



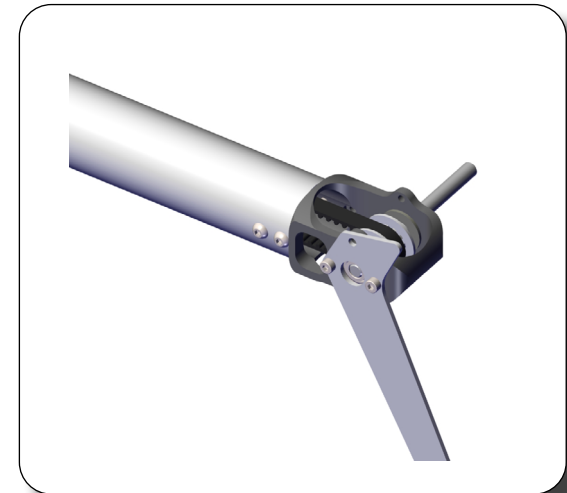
Add 5\*8\*0.1 washer (XL55A08) as needed for adjusting play



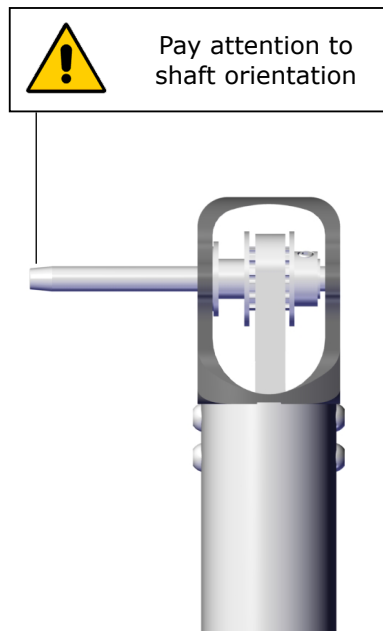
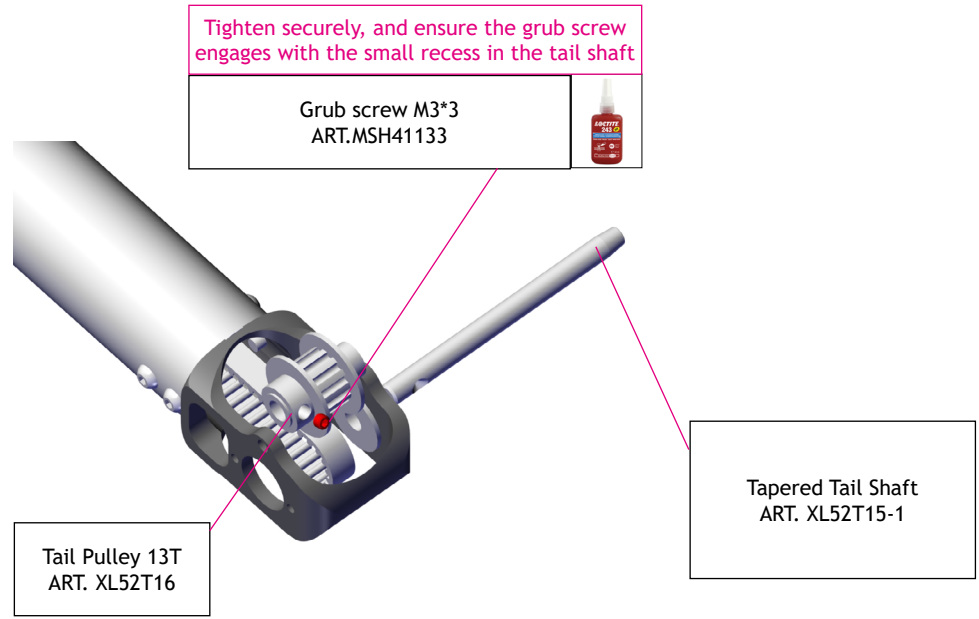
Hex screw M2.5\*5  
ART.MSH41123



Vertical Fin  
ART. XL55T03

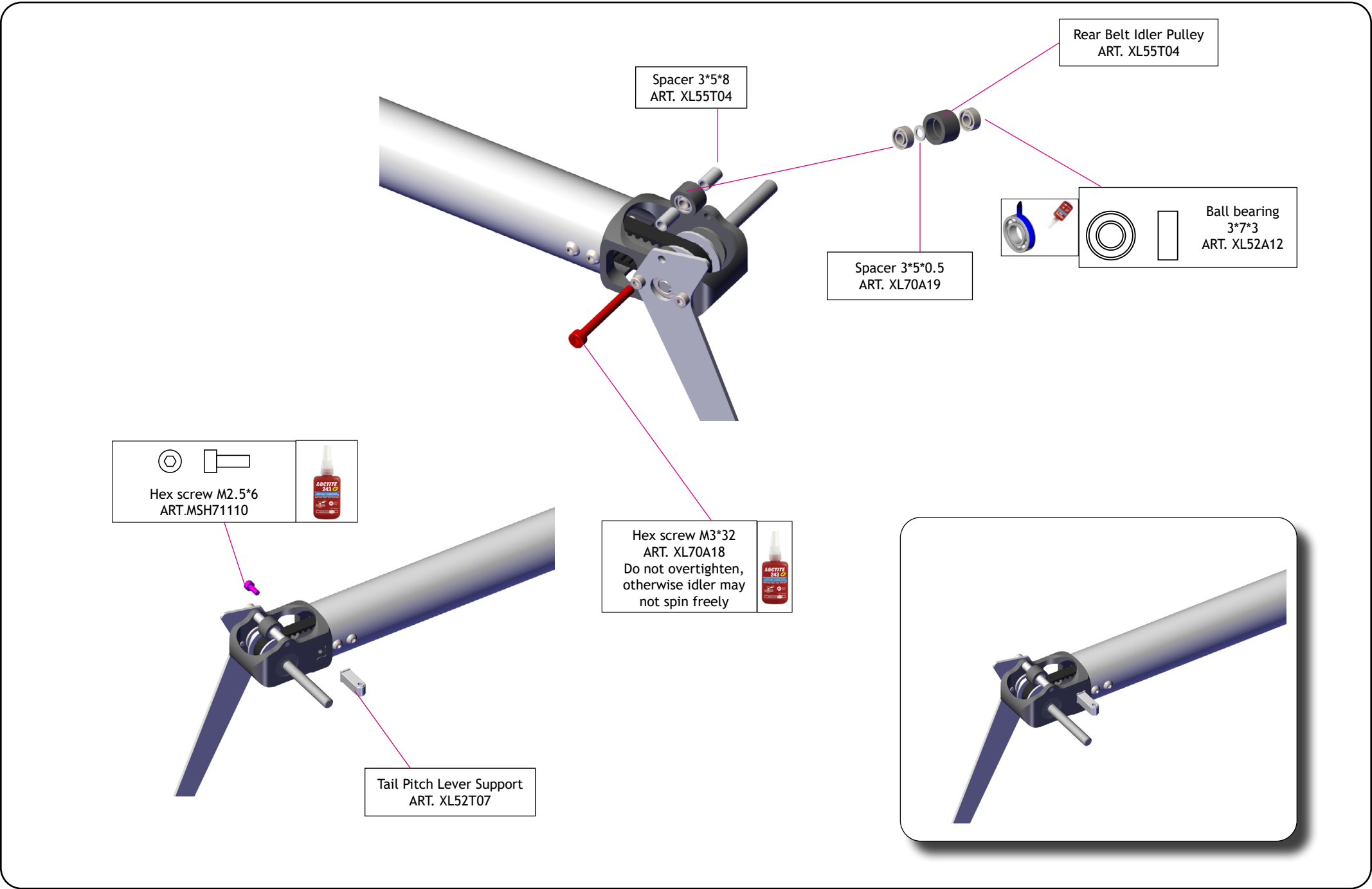


# Tapered tail shaft





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

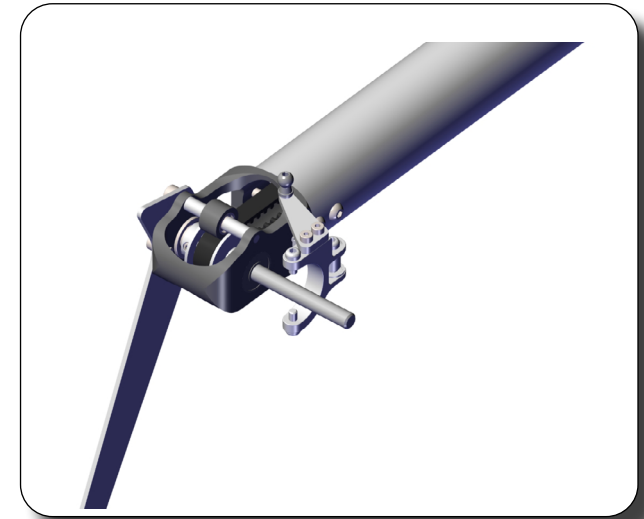
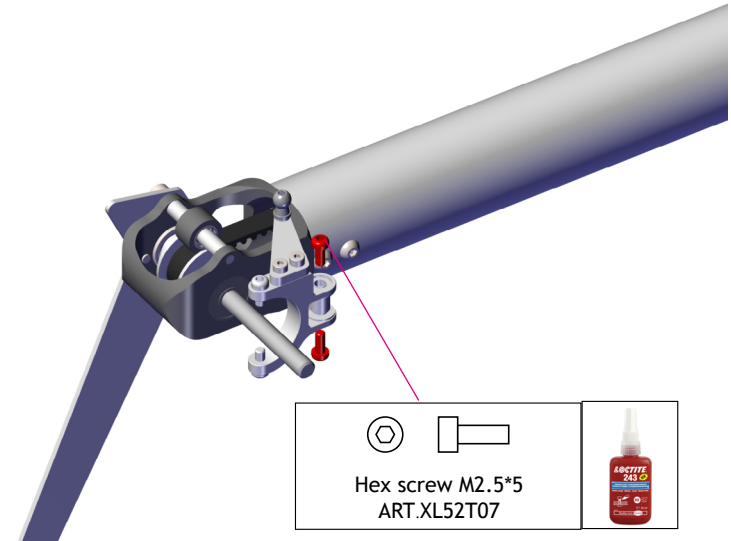
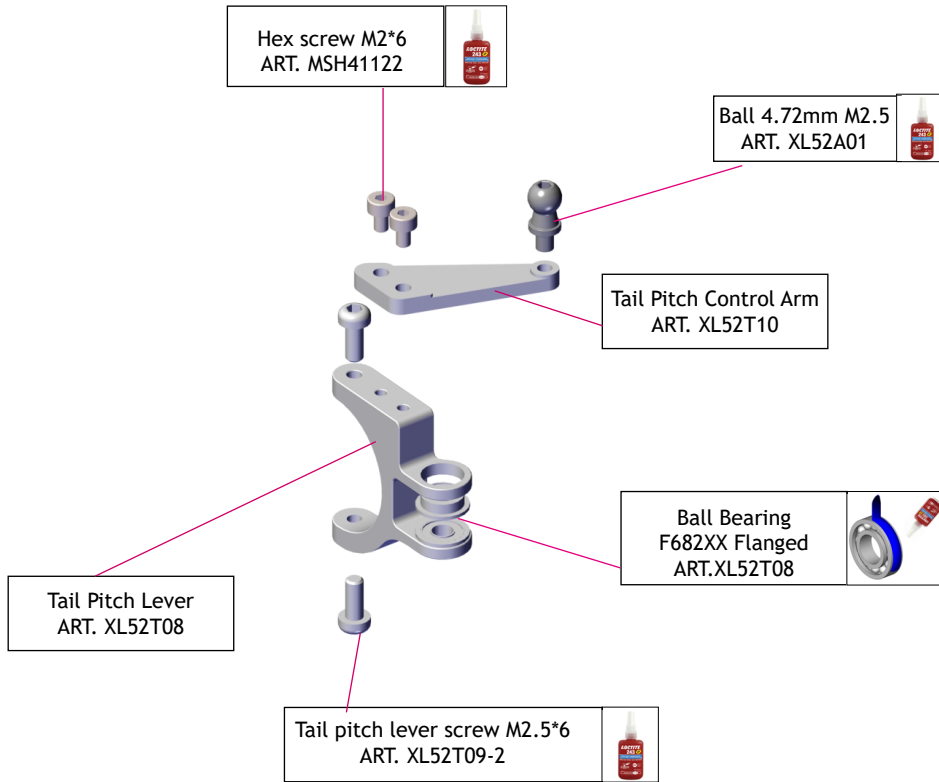






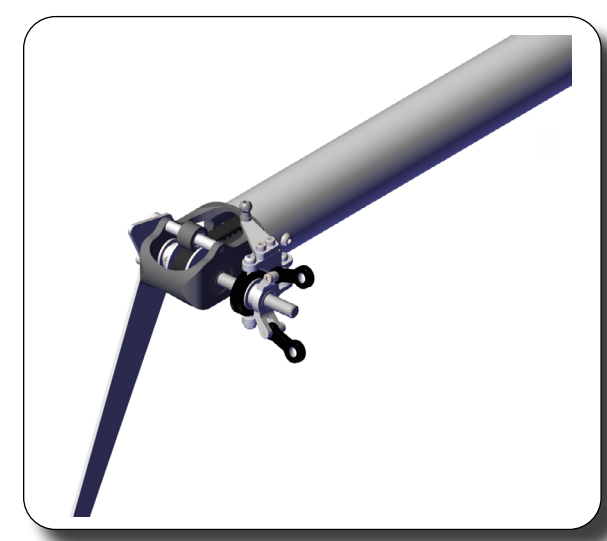
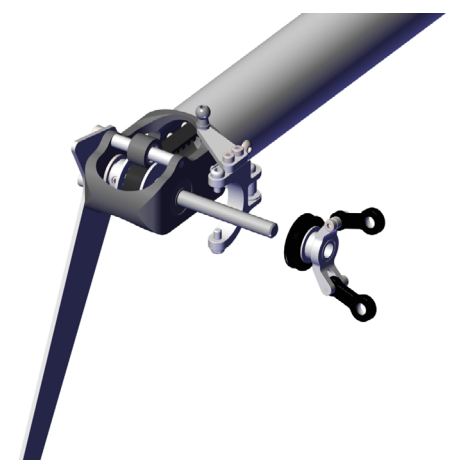
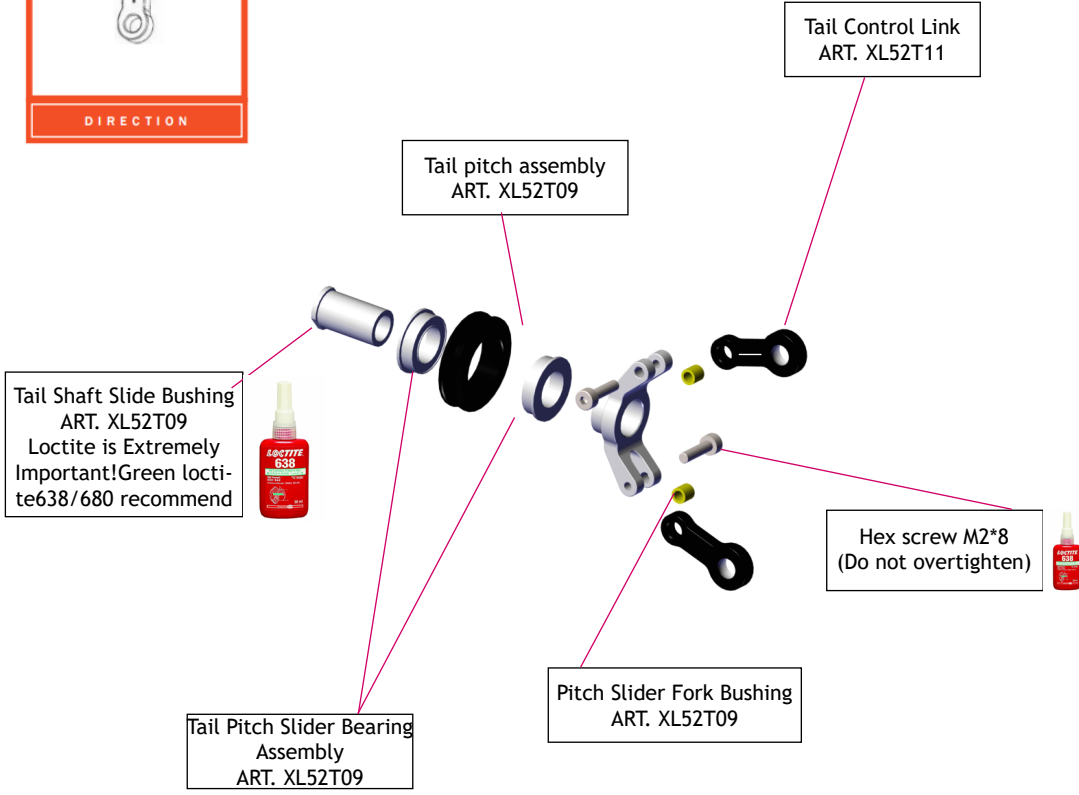
Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

3





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

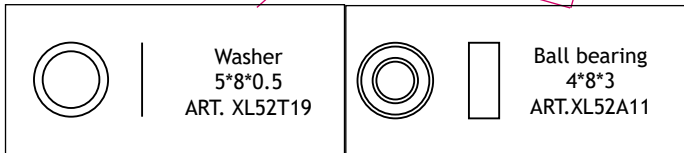
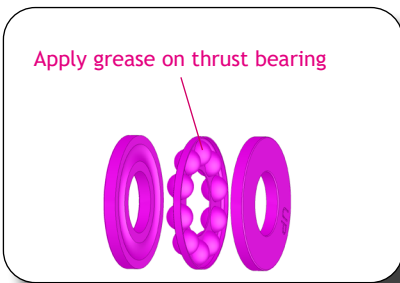


Thrust Bearing  
4\*8\*3.5  
ART.XL52T19

ID Bigger Towards Tail Hub  
ID Smaller Towards Tail Blade

Tail grip  
ART. XL52T13

Ball 4.72mm M2.5  
ART. XL52A01



Washer  
5\*8\*0.5  
ART. XL52T19

Ball bearing  
4\*8\*3  
ART.XL52A11

Tail Center Hub  
ART. XL52T12

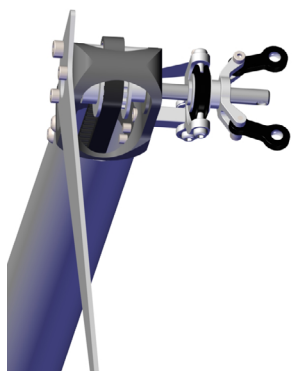
Tail Spindle  
ART. XL52T14

Washer 4\*6\*0.5  
ART. XL52T28-1

Tail Damper  
ART. XL52T28-1

M3 Washer  
ART. XL52T14

Hex screw M3\*6  
ART. XL52T14

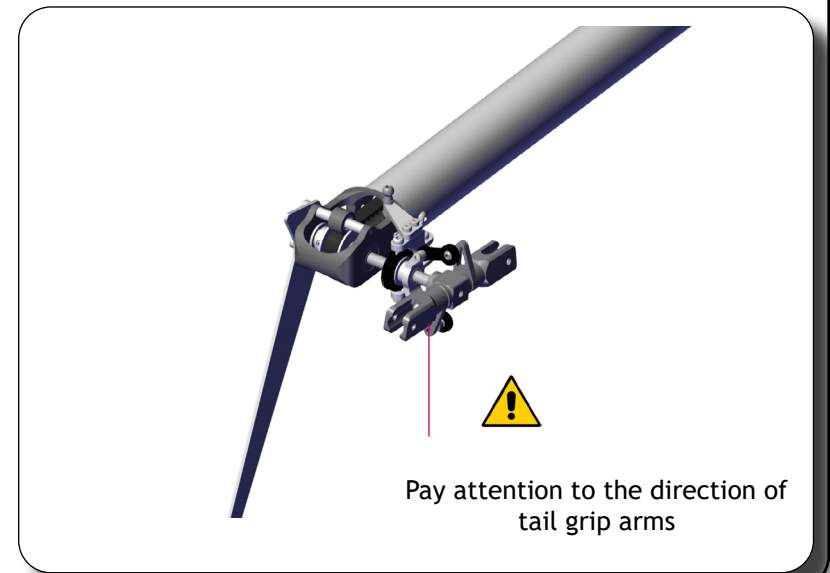


Tighten securely, and ensure the grub screw engages with the small recess in the tail shaft

Grub screw M3\*3 (Green loctite638/680 recommend)  
ART. MSH41133

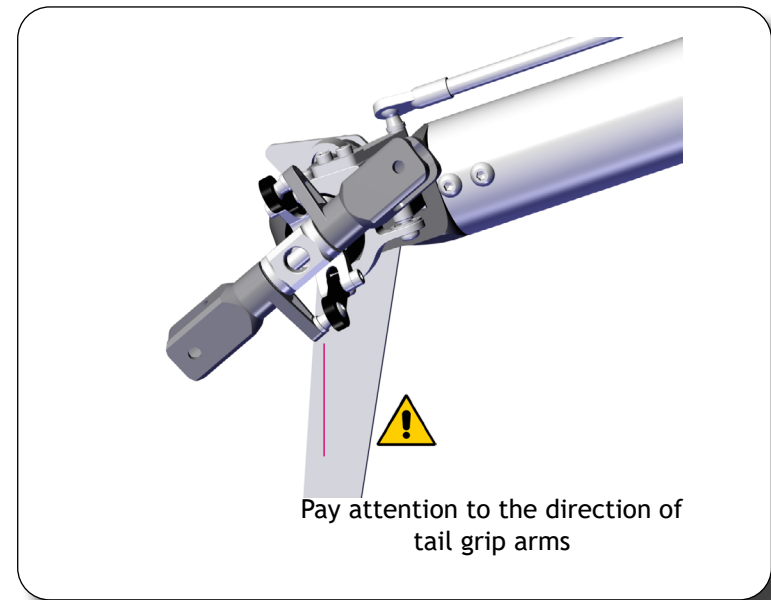
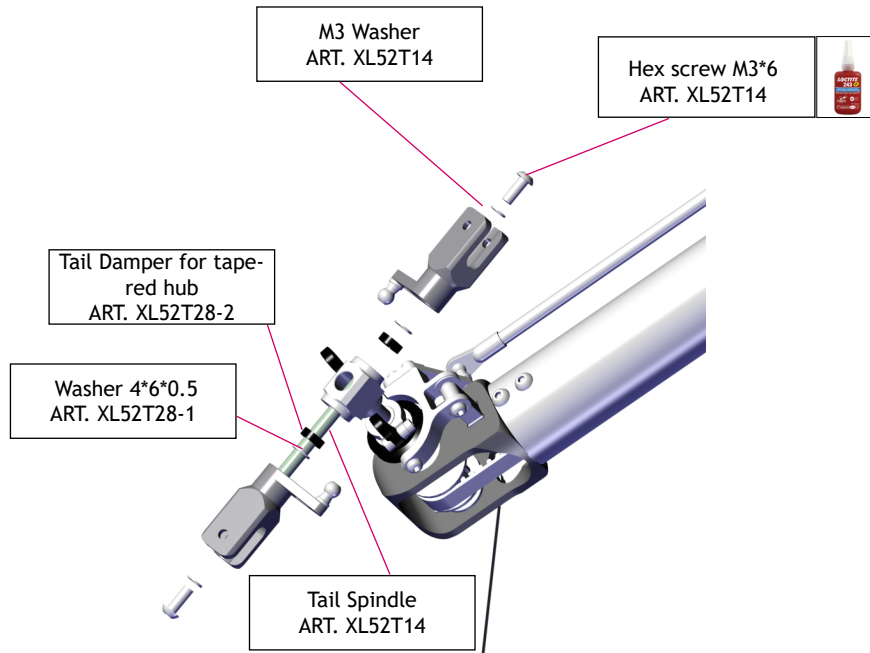
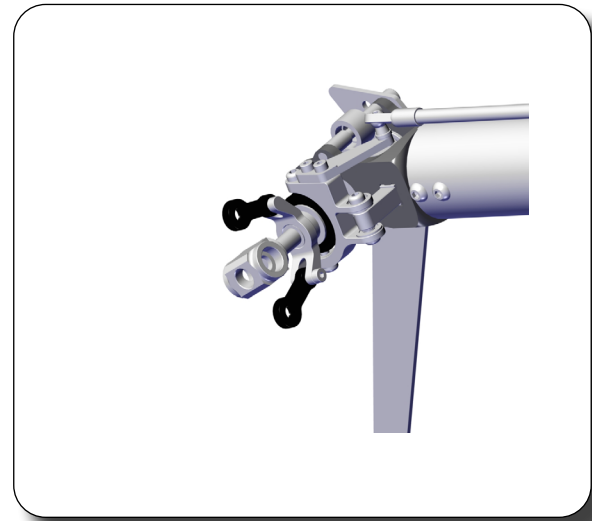
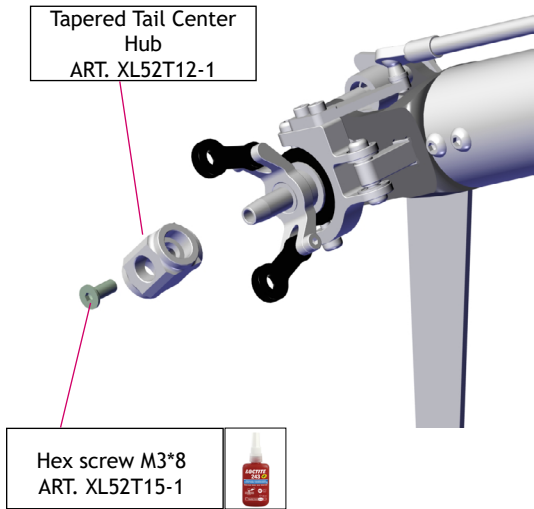


(if you have new tapered tail shaft and hub pls check next page)



Pay attention to the direction of tail grip arms

# Tapered tail hub



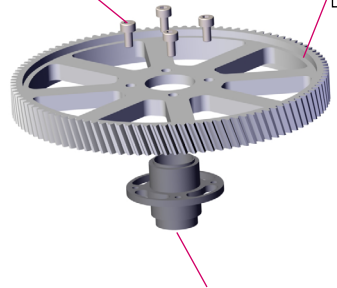


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

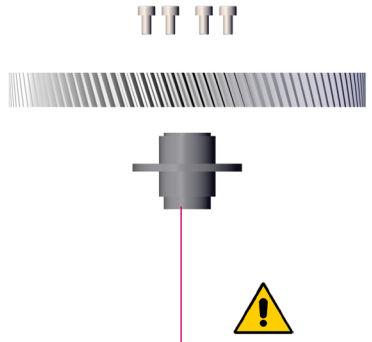
Hex screw M3\*8  
ART. XL55B21



Main Gear 106T Mod1  
(ART. XL52B24-1)  
Option:  
12mm Heavy Duty Main Gear 106T Mod1  
(ART. XL52B24-2)



Main Gear Hub (Preassembled)  
ART. XL55B21  
You may add grease to one-way bearing

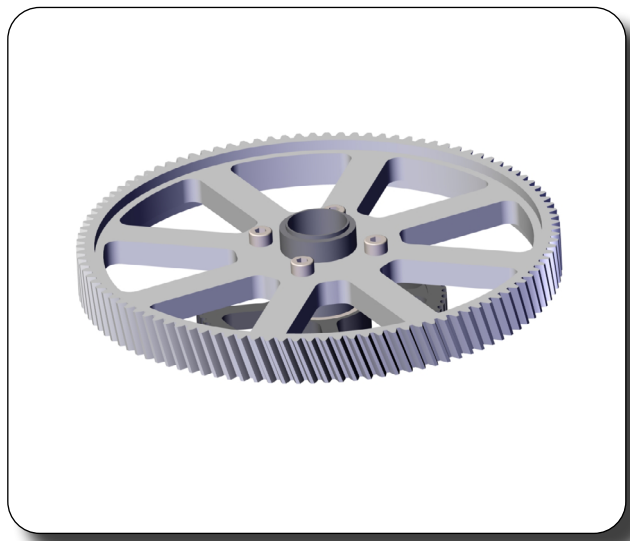
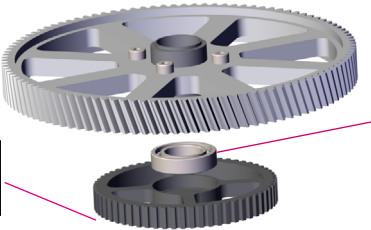


Pay attention to the direction of hub

60T Front Pulley  
ART. XL55B22

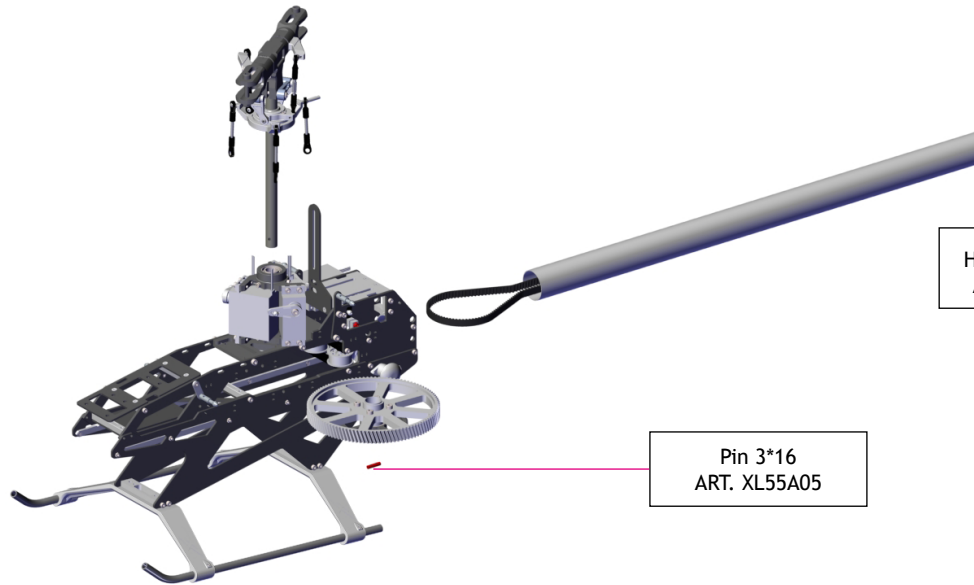


Ball bearing  
15\*21\*4  
ART. XL70B21-3



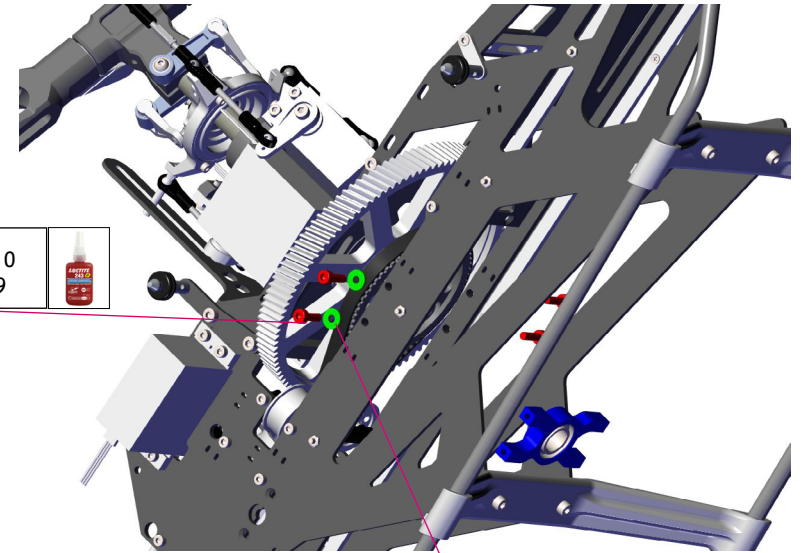


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

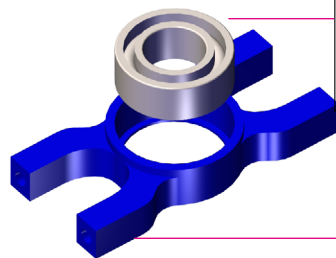


Pin 3\*16  
ART. XL55A05

Hex screw M3\*10  
ART. MSH71099

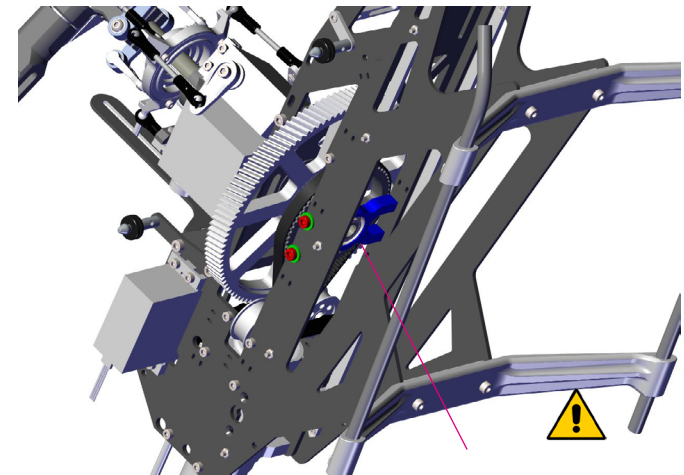


3\*8\*1 washer  
ART. XL55A07

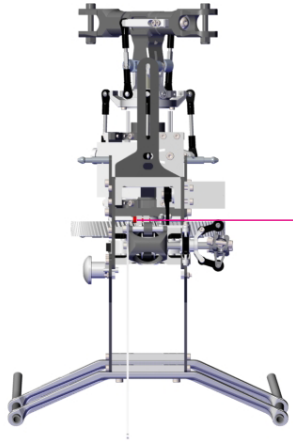


Double Row  
Angular Contact  
Bearing  
10\*19\*7  
ART. XL70H04

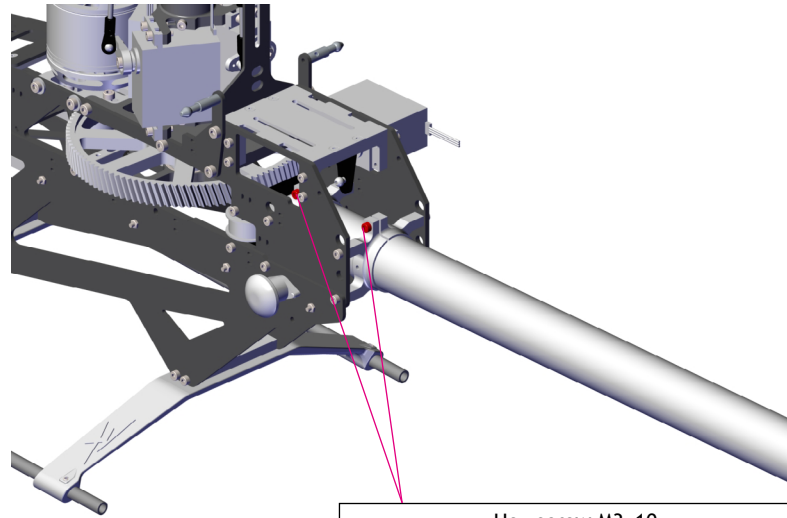
Third Bearing Block  
(Not included in XL55V2K01)  
ART. XL55B23



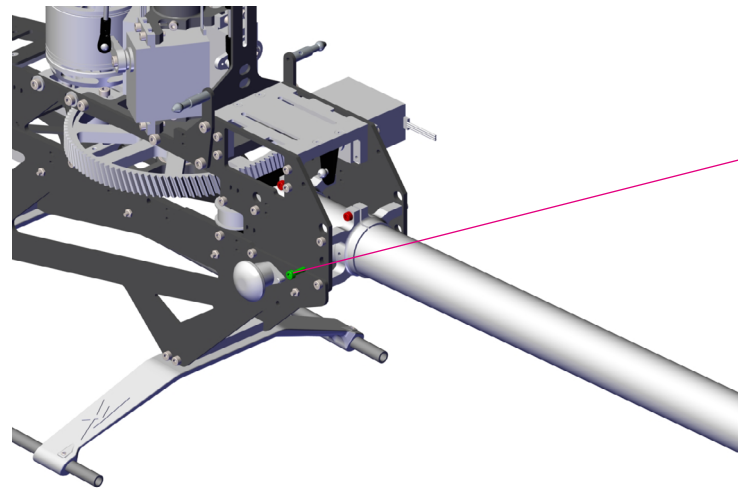
Push third bearing block up and  
tighten M3\*10 screws



Ensure tail box alignment  
before tightening clamps



Hex screw M3x10  
Set belt tension by pulling backwards on the tail boom. Ensure tail tail case is level, then tighten screws.

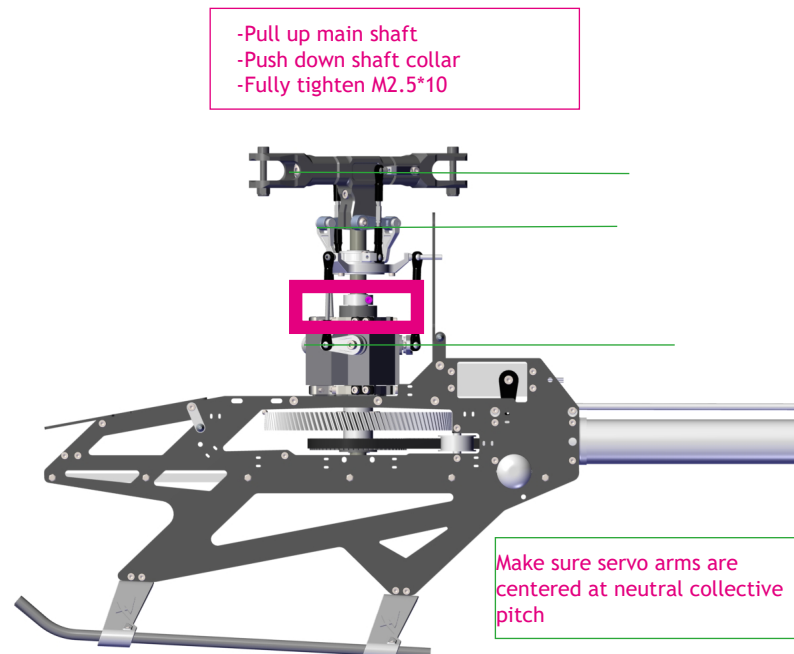
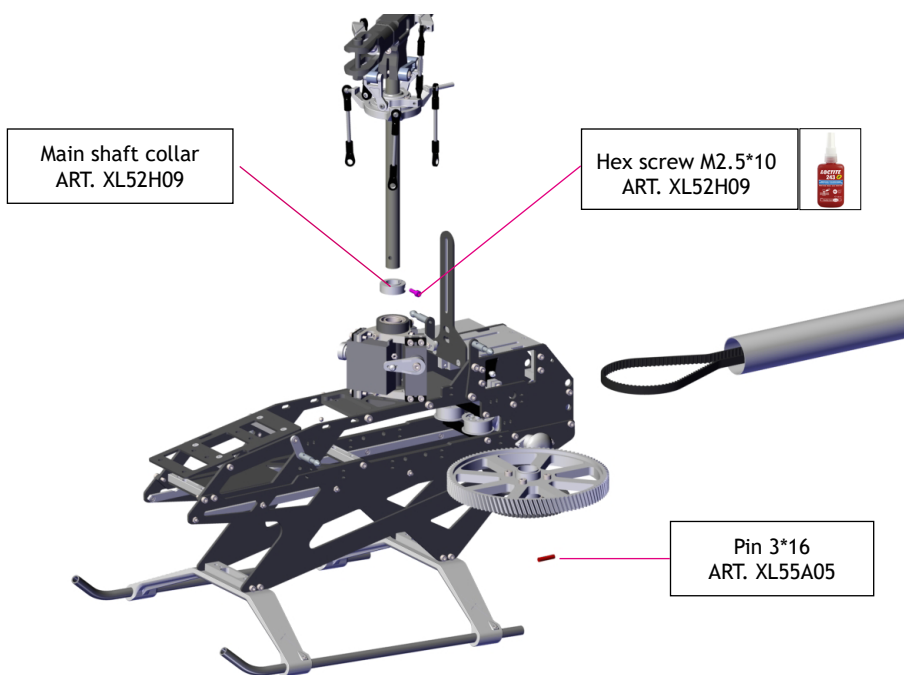


Hex screw M2.5\*5  
Goes Through Wall of Tail Boom  
ART. MSH41123

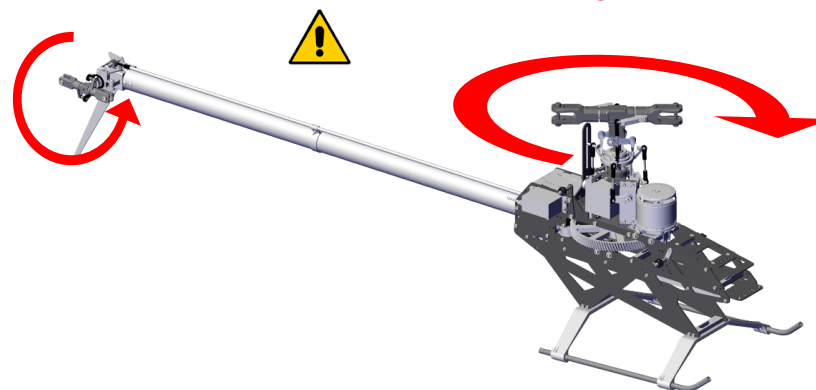




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



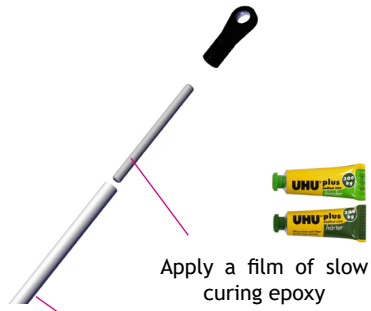
Check the rotation direction during the installation of the belt



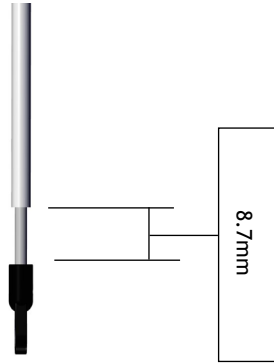




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight



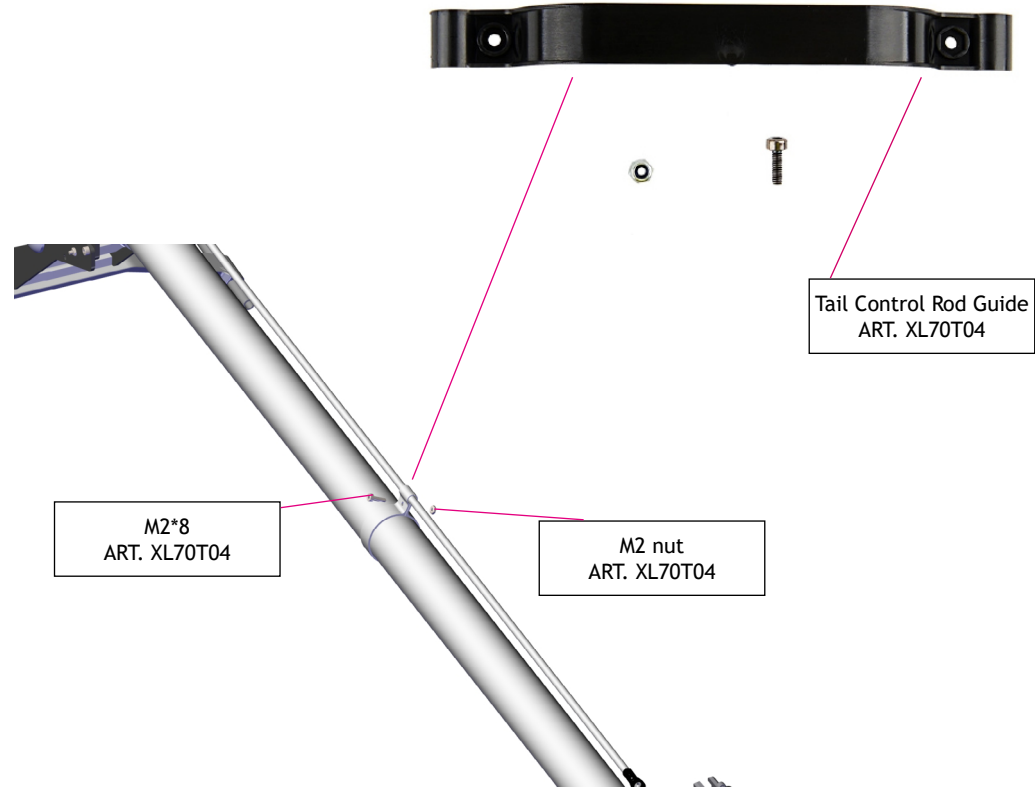
Apply a film of slow curing epoxy



8.7mm

Rod length may differ slightly with different servo brands

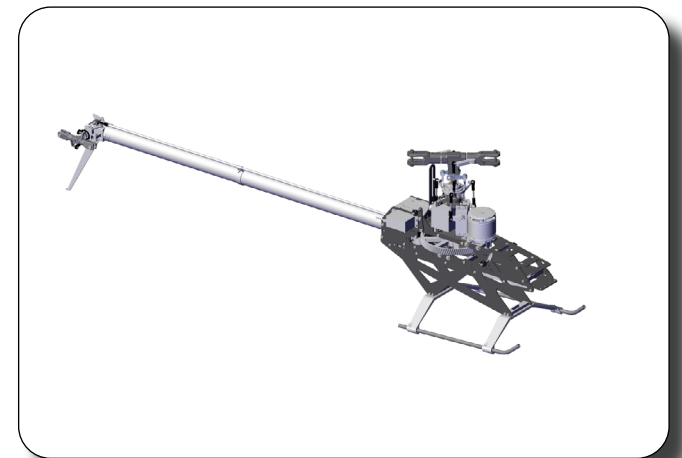
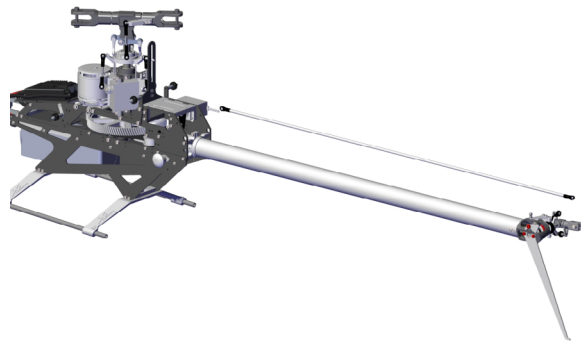
Tail linkage rod  
ART. XL52T23

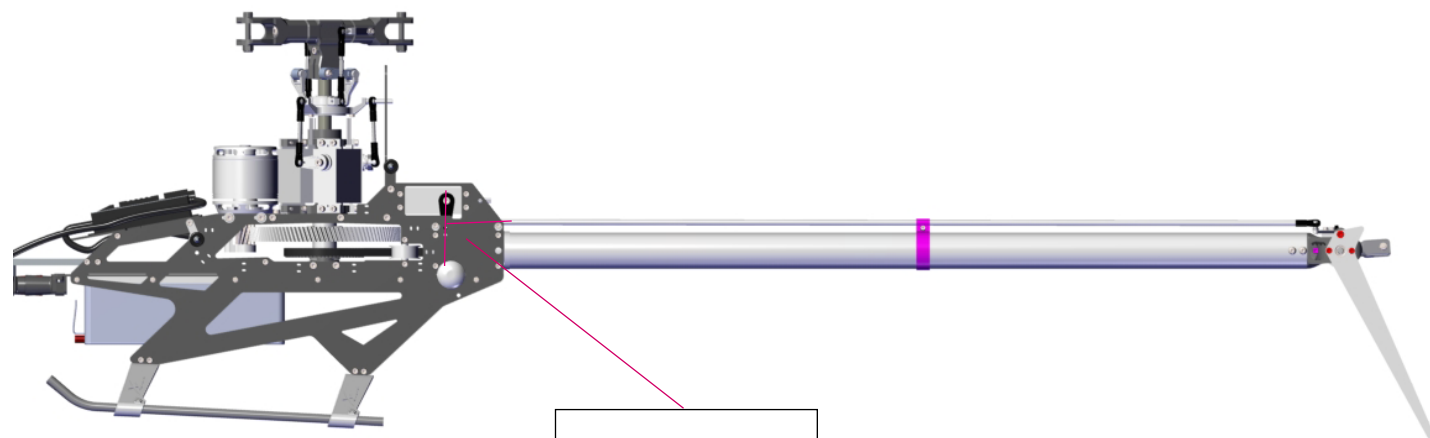


Tail Control Rod Guide  
ART. XL70T04

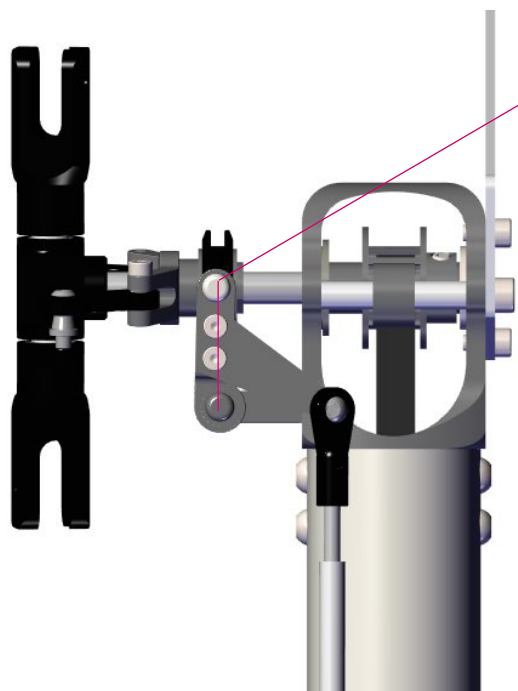
M2\*8  
ART. XL70T04

M2 nut  
ART. XL70T04





Pitch slider should be centered with tail servo at neutral

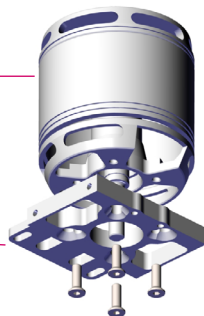




Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

4020-4035 500-1200kv  
motor 5/6mm shaft  
(20mm length min)(not  
included)  
ART. XL52M01  
XL52M03

Motor Mount Upper  
ART. XL55B24



Flat screw M3\*10  
ART. MSH71099



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

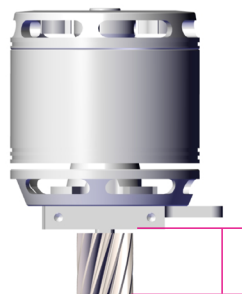
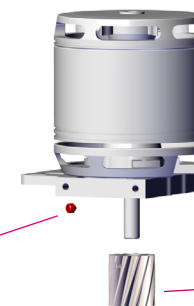
Grub screw M3\*3  
ART. MSH41133



HD Motor pinion 12T  
ART. XL52G12-1  
Included in Kit

Option:  
XL52G11  
XL52G13-1

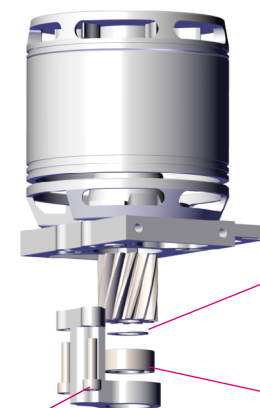
Use bushing when motor  
shaft is 5mm



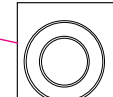
17MM



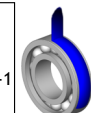
Hex Screw M2.5\*10  
ART. MSH71103



Washer  
6\*8\*0.1  
ART. XL48A02

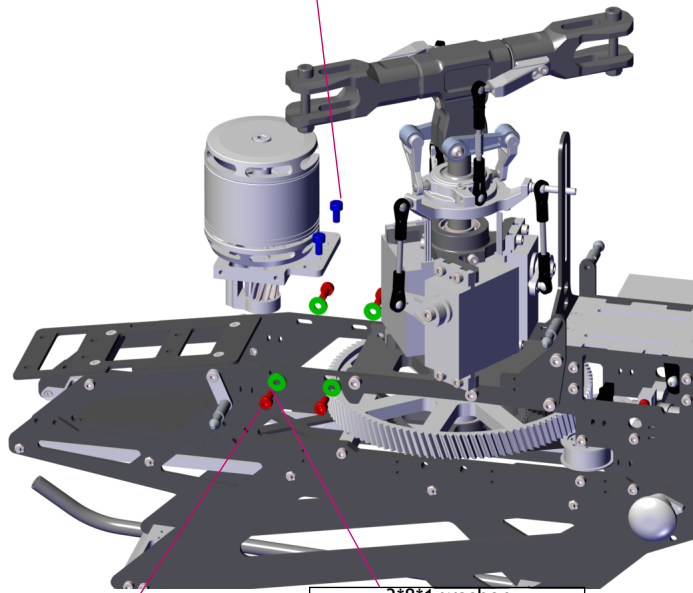


Bearing  
6\*13\*5  
ART. XL70A06-1



Motor Mount lower(Optional  
.6mm diameter 29mm lenth  
min)ART. XL55B25

Hex screw M3x6  
Do not fully tighten yet  
ART. MSH71108

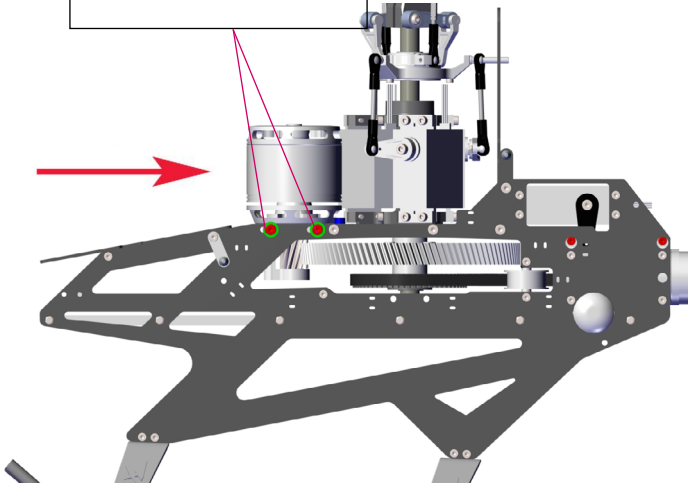


3\*8\*1 washer  
ART. XL55A07

Hex screw M3\*8  
Do not fully tighten yet  
ART. MSH71109



Use A4 printer paper to set  
gear mesh at the lowest point,  
push pinion into gear, then  
tighten 2 screws on each side,  
and the top 2 screws

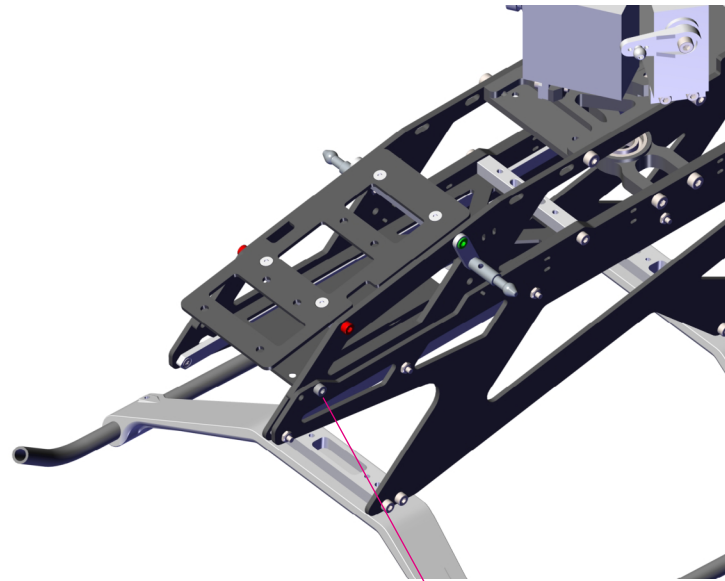


# Optional

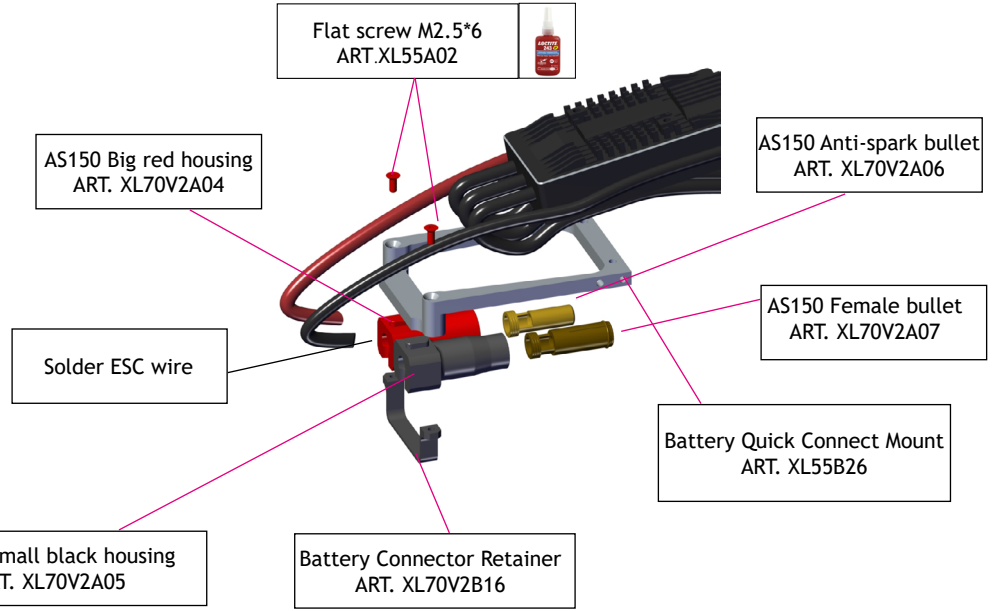


Clean all screws and threads with isopropyl alcohol (90% or above) to ensure threadlocker bonds properly and prevent screws from loosening in flight

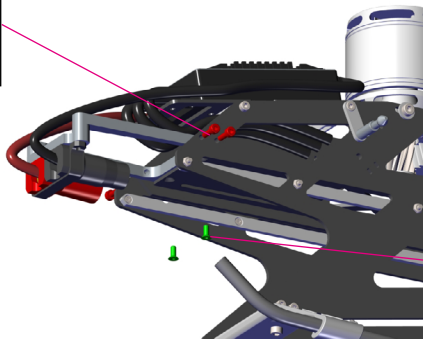
# NIMBUS 550



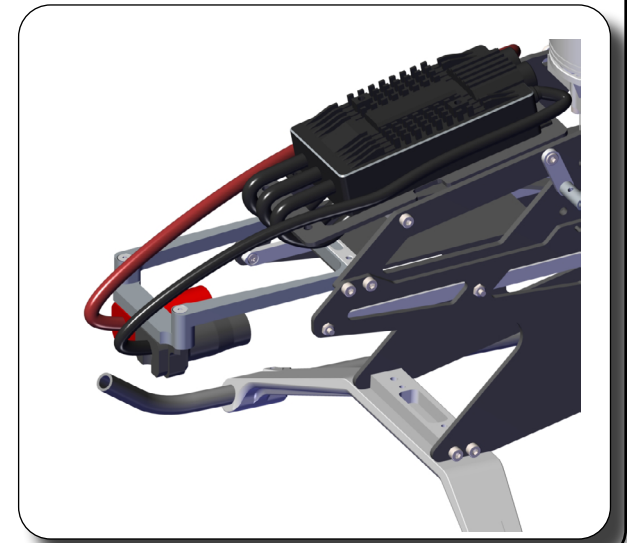
Remove M2.5\*8 screws  
M2.5\*6 Flat screws and  
frame spacer



Hex screw  
M2.5\*8  
ART. MSH71111



Flat screw M2.5\*6  
ART. XL55A02



# Optional



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

# NIMBUS 550

Flat screw M2.5\*6  
ART.XL70V2B16



AS150 Small red housing  
ART. XL70V2A08

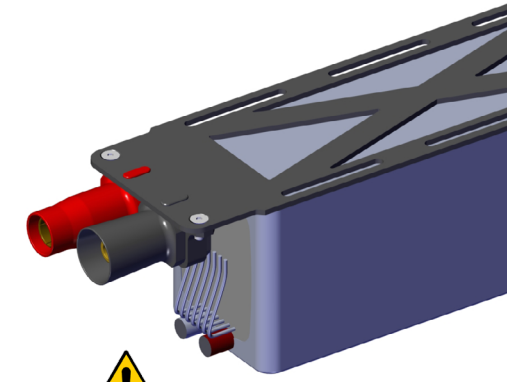
AS150 Female bullet  
ART. XL70V2A07

AS150 Male bullet  
ART. XL70V2A10

Battery Connector Retainer  
ART. XL70V2B16

AS150 Big black housing  
ART. XL70V2A09

Solder Battery wire



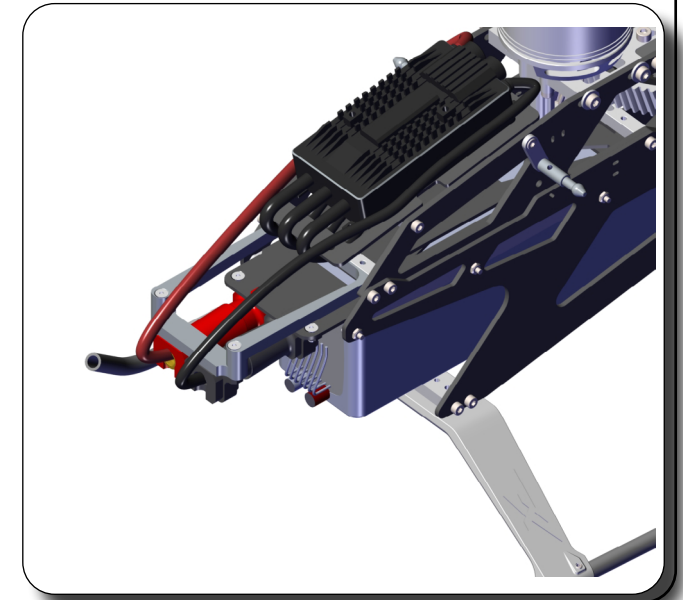
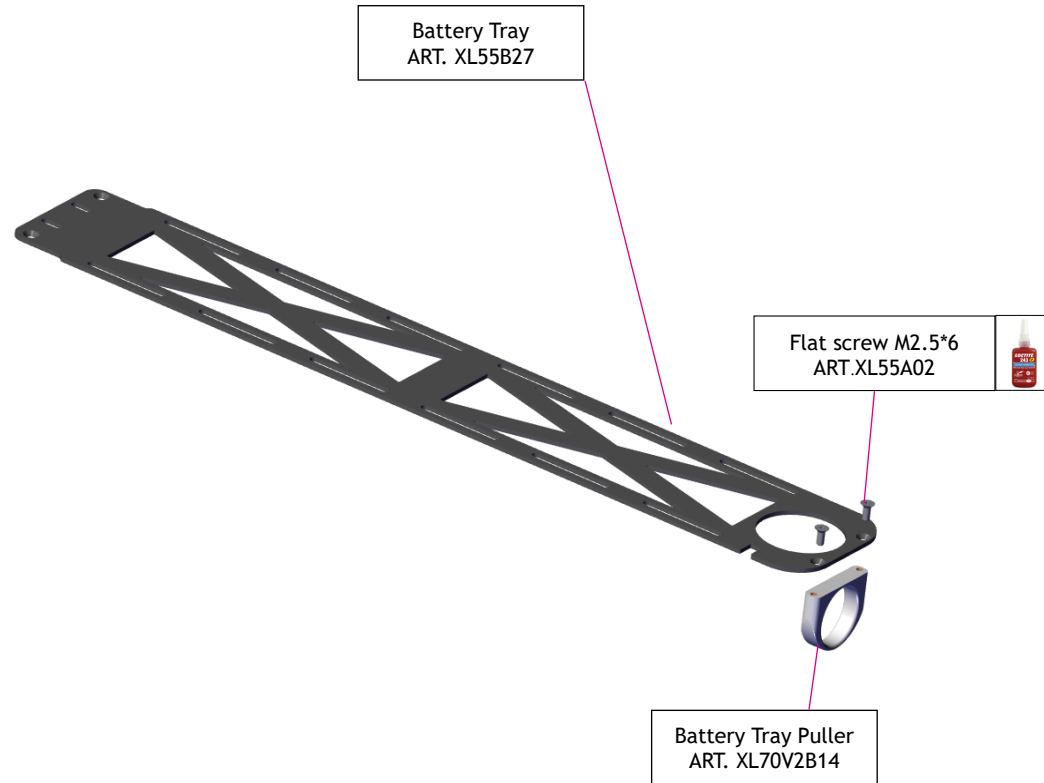
Make sure the connectors are fully mated and tray latch is locked before flying

# Bag11+Bag3



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

# NIMBUS 550



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