

# *Arrow Shark* **BLADE-X**

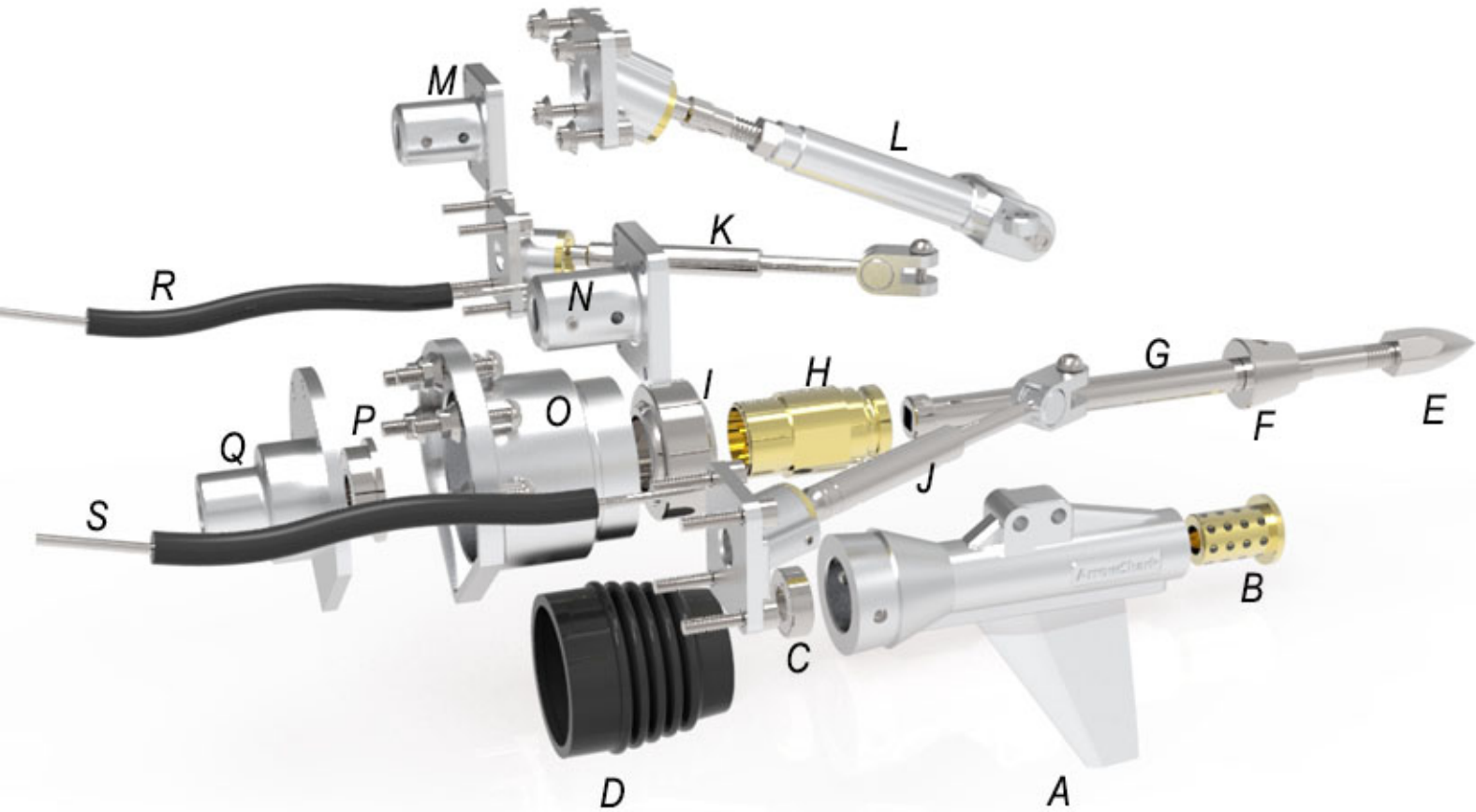
## **Owner Manual**



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## Blade-X Exploded View



A: Blade-X Main Body

B: graphite self-lubricating copper bush

C: Drive Shaft Bearing

D: Rubber Seal

E: SS Prop Nut

F: SS Drive Dog

G: Propshaft & 1/4" Square Insert

H: Copper Connector

I: Radial spherical plain bearing

J: Left Side Steering Cylinder Assembly

K: Right Side Steering Cylinder Assembly

L: Center Trimming Cylinder Assembly

M: Right Side Steering Cable Adaptor

N: Left Side Steering Cable Adaptor

O: Billet Main Base

P: Flexible Shaft Support Bearing

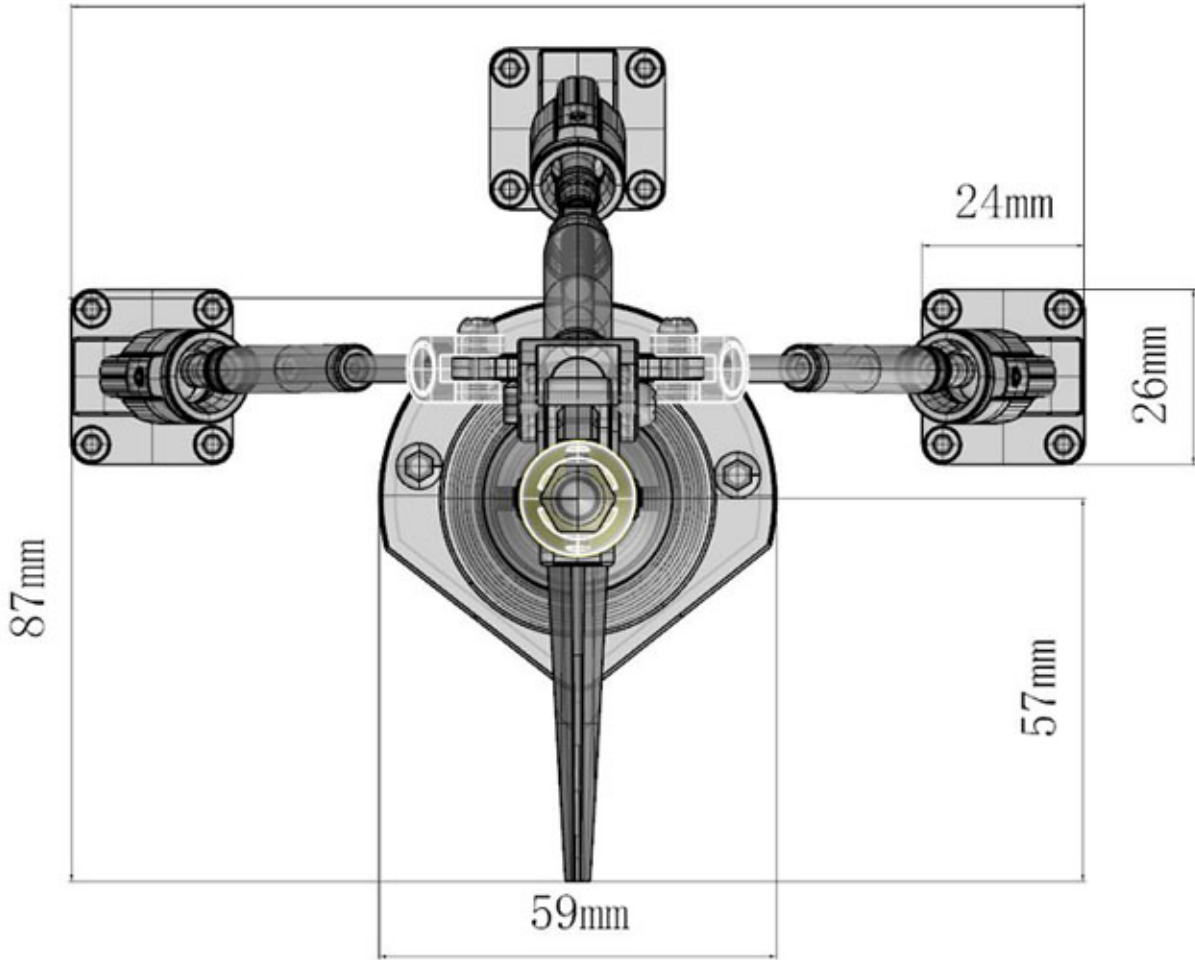
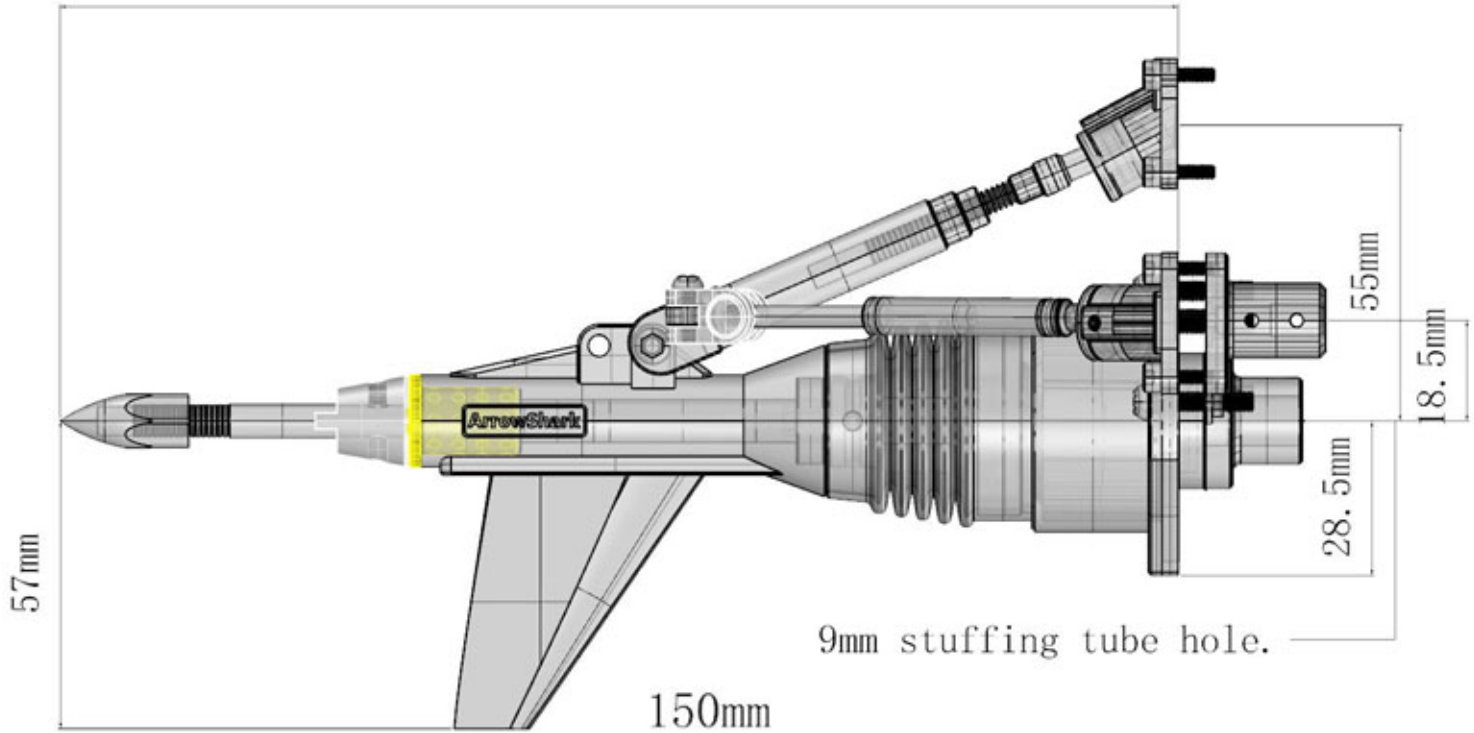
Q: Stuffing Tube Holder

R: Steering Cable Housing

S: Steering Cable

# Dimension Guide

207mm



Plastic cable housing length 200mm



Steel cable length 240mm in diameter of 2mm



# Blade-X Assembly Procedures

## Main Body Assembly



- A: Install drive shaft bearing into front side of main body.
- B: Press In the graphite self-lubricating copper bush into the back side of main body.
- C: Insert the propshaft into the main body via the bearing and bush.
- D: Insert the drive dog onto the propshaft and tighten the M4 allen set screw.
- E: Screw the prop nut onto the tail of the shaft.



Loctite 603



F: Install the radial spherical plain bearing into the billet main base.



G: Apply some loctite 603 retaining adhesive around the flat end of the copper connector, then install the copper connector into the center hole of radial spherical plain bearing.





Insert the rubber seal onto the billet main base side first, then, squeeze upward the rubber seal, so, you can install the other side of the copper connector into the main body of the blade-X, secure the M4 allen set screw into the groove on the copper connector in order to the copper connector firmly inside the main body.

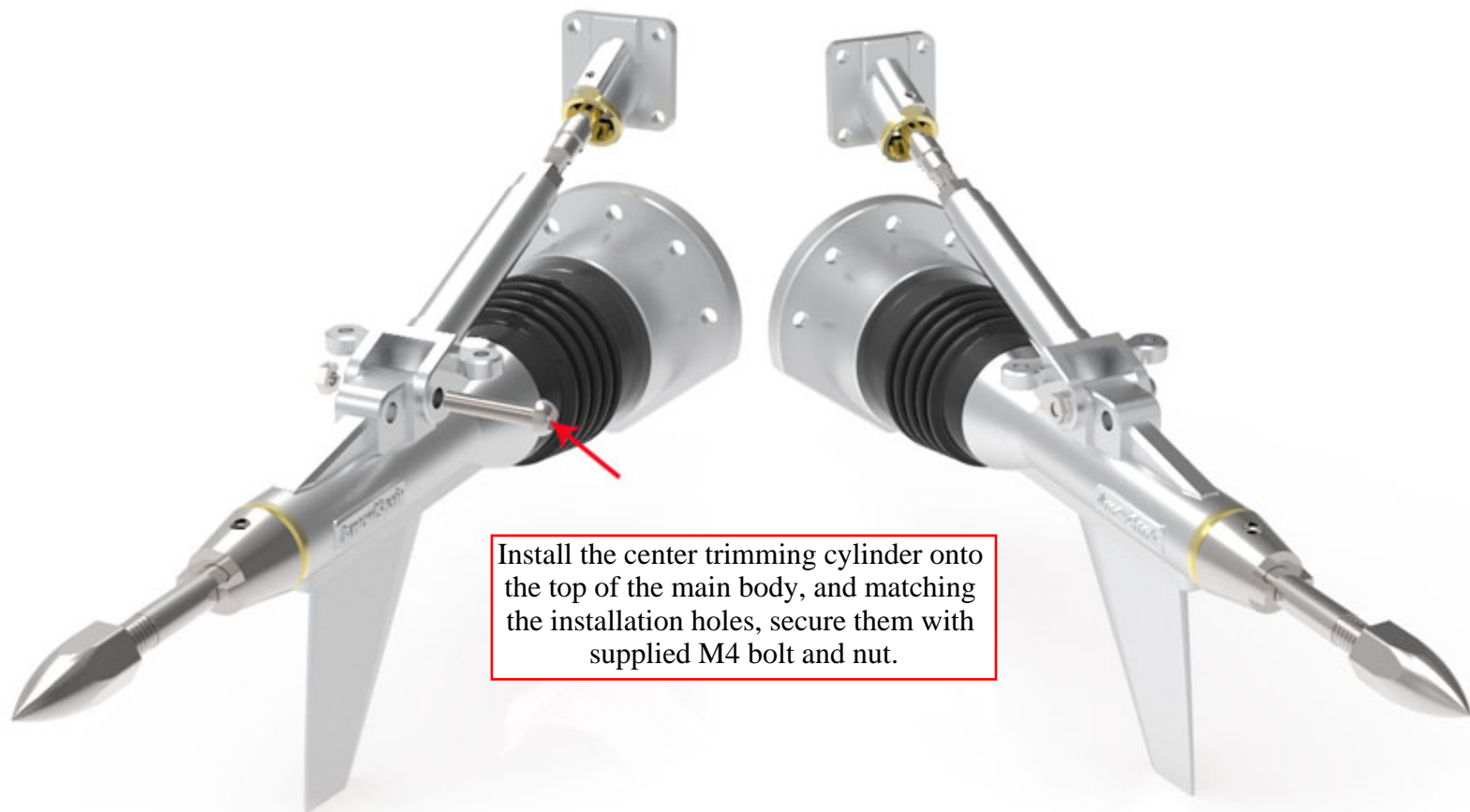


Main Body Assembly Is Now Completed!

## Center Trimming Cylinder Assembly

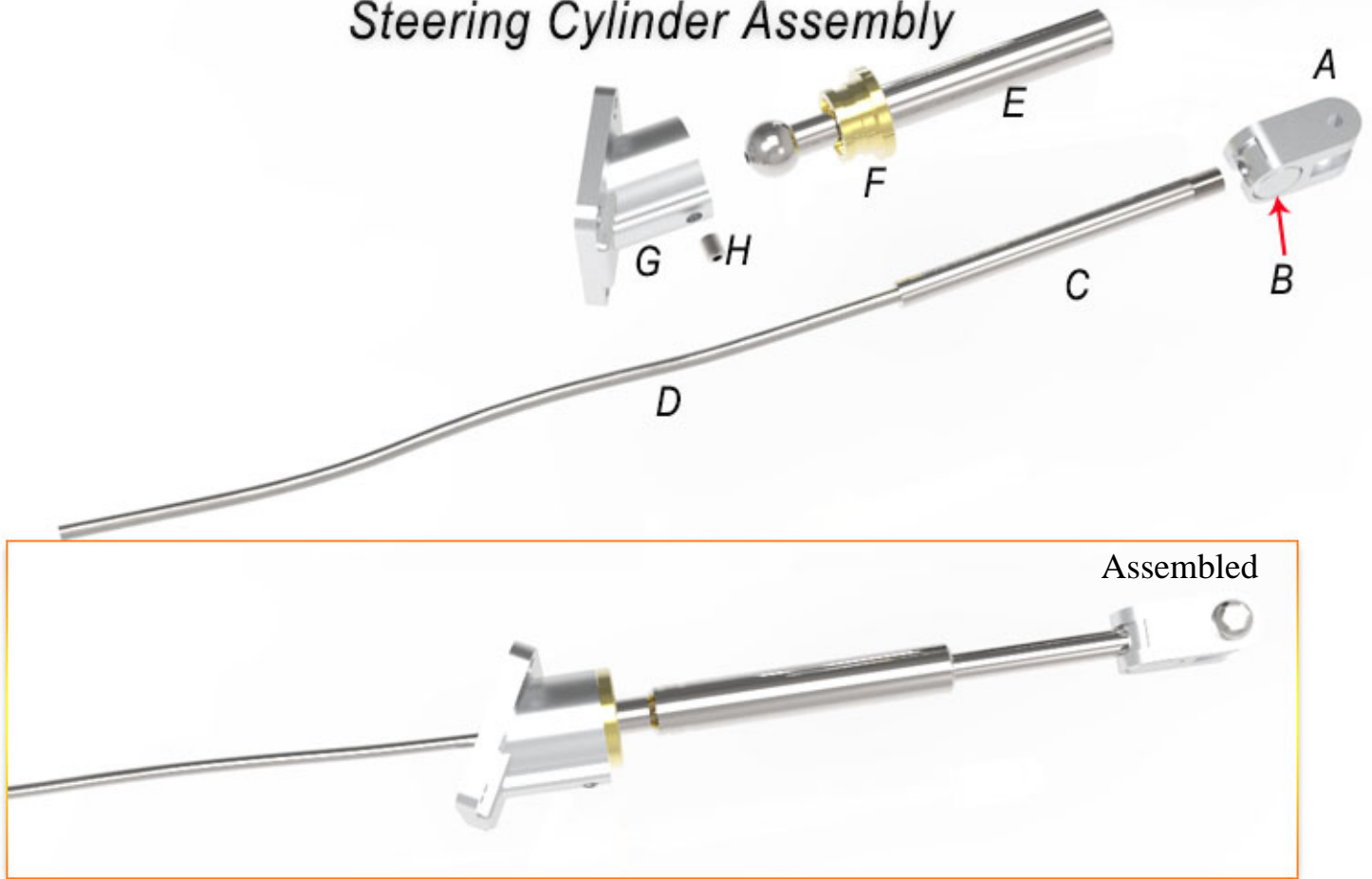


Slide the trim shaft (#C) through center hole of copper bush (#D), Install the copper bush along with the trim shaft into the angle adaptor (#E), secure the copper bush inside of the angle adaptor by tighten the M3 hex nut (#F) into the slot on the copper bush. screw the M5 nut (#B) onto the trim shaft at near thread end spot, then, screw trim shaft assembly into the trimming cylinder (#A) until against the M5 nut, you can adjust the propeller thrust angle by screw in or out the trim shaft, after reaching your prefer thrust angle, fasten the M5 nut to set the angle firmly in place.

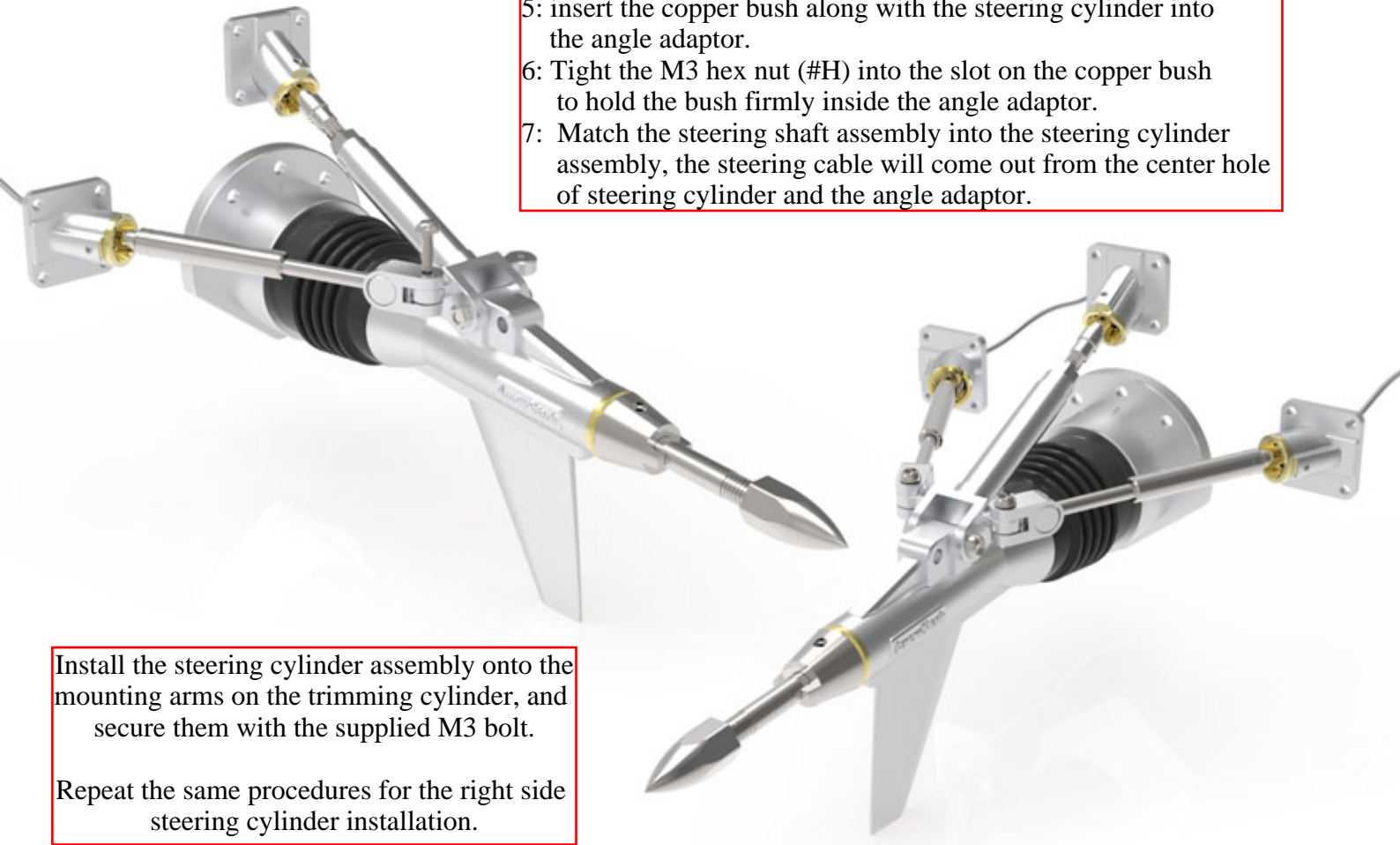


Install the center trimming cylinder onto the top of the main body, and matching the installation holes, secure them with supplied M4 bolt and nut.

# Steering Cylinder Assembly



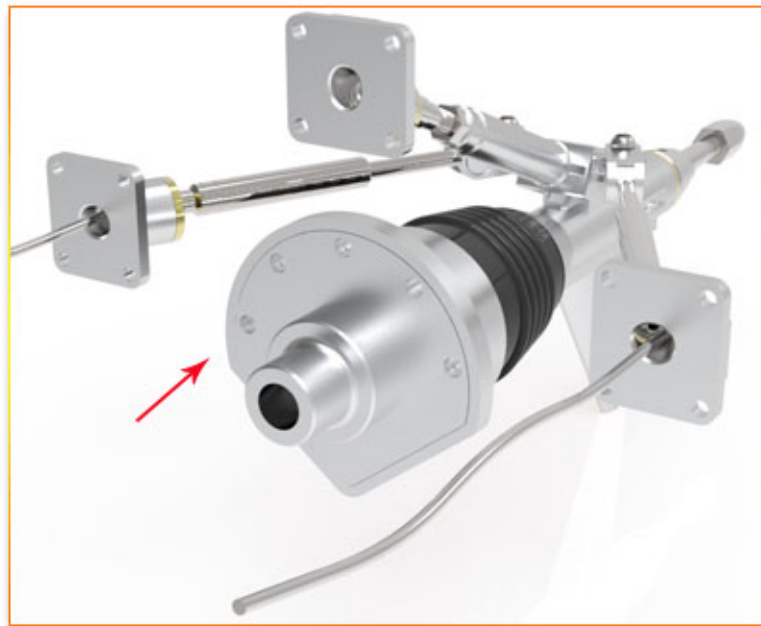
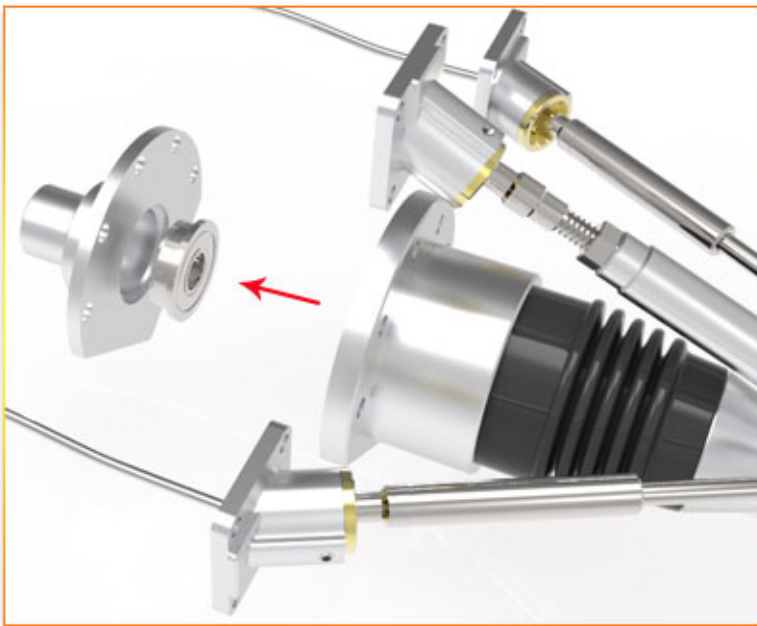
- 1: Glue the steering cable (#D) inside of steering shaft (#C).
- 2: Install the rotating adaptor (#B) into the steering adaptor.
- 3: Screw the steering shaft into rotating adaptor.
- 4: slide the steering cylinder (#E) via the copper bush (#F).
- 5: insert the copper bush along with the steering cylinder into the angle adaptor.
- 6: Tight the M3 hex nut (#H) into the slot on the copper bush to hold the bush firmly inside the angle adaptor.
- 7: Match the steering shaft assembly into the steering cylinder assembly, the steering cable will come out from the center hole of steering cylinder and the angle adaptor.



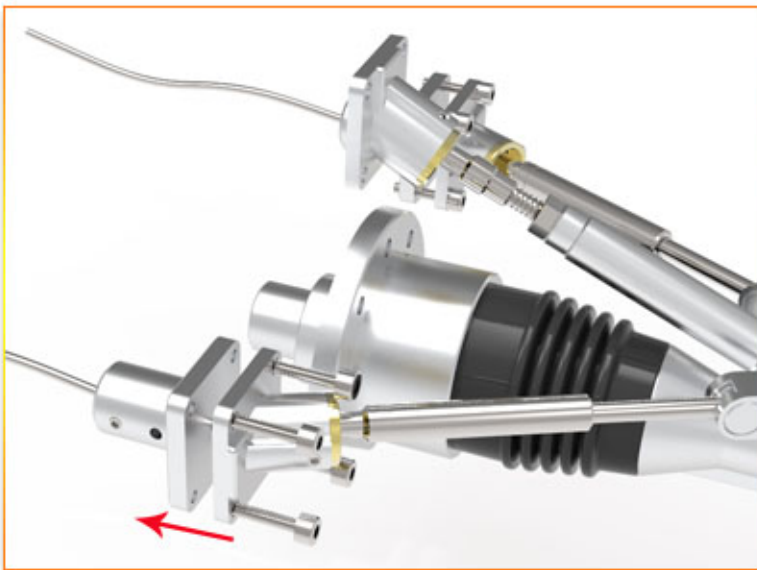
Install the steering cylinder assembly onto the mounting arms on the trimming cylinder, and secure them with the supplied M3 bolt.

Repeat the same procedures for the right side steering cylinder installation.

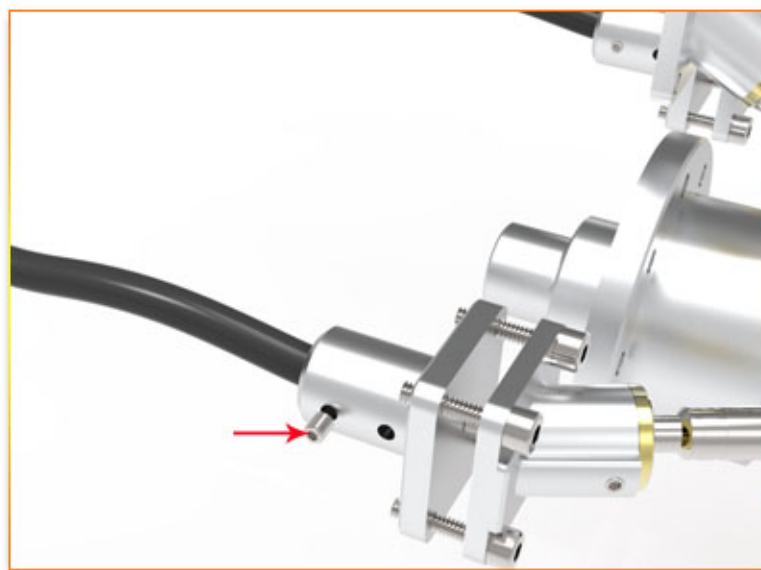




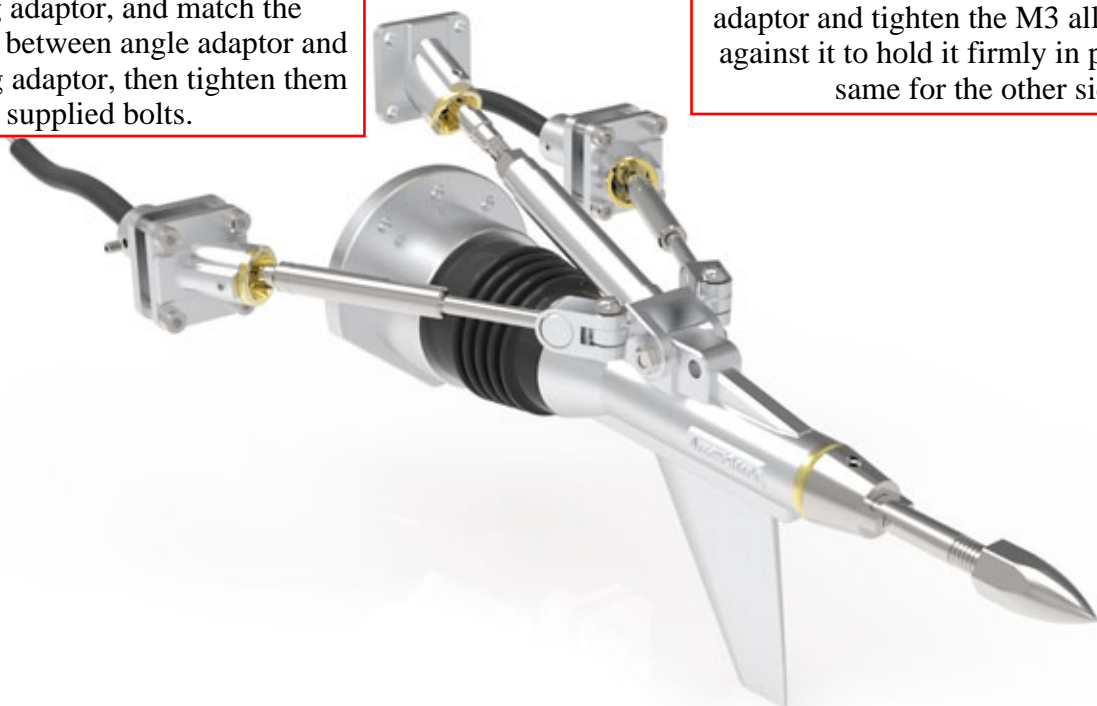
Install the flexible shaft supporting bearing into the stuffing tube holder from the back, then match it into the billet main back as shown in the above picture.



Pass the steering cable via the center hole of cable housing adaptor, and match the installation holes between angle adaptor and the cable housing adaptor, then tighten them with supplied bolts.



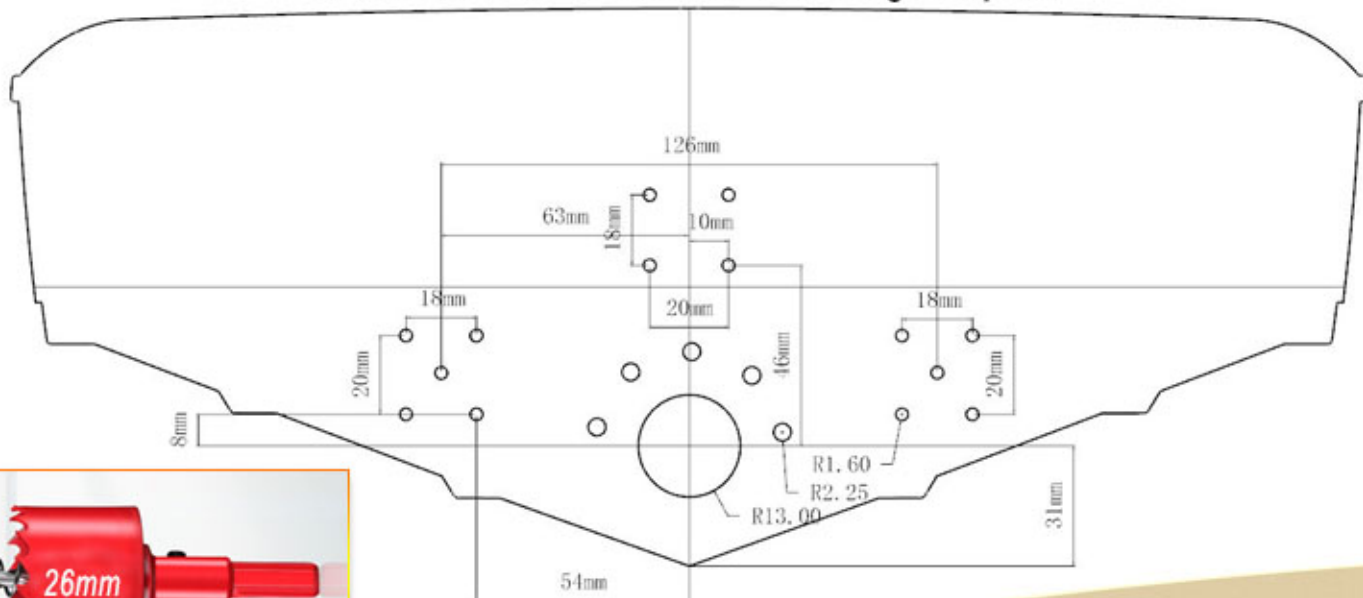
Install the cable plastic housing into the adaptor and tighten the M3 allen set screw against it to hold it firmly in place, do the same for the other side.



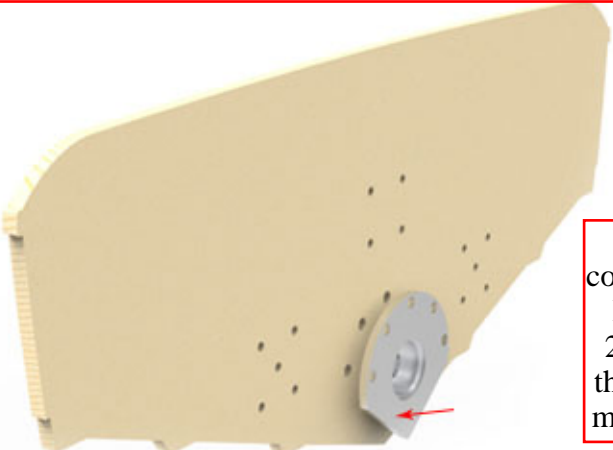
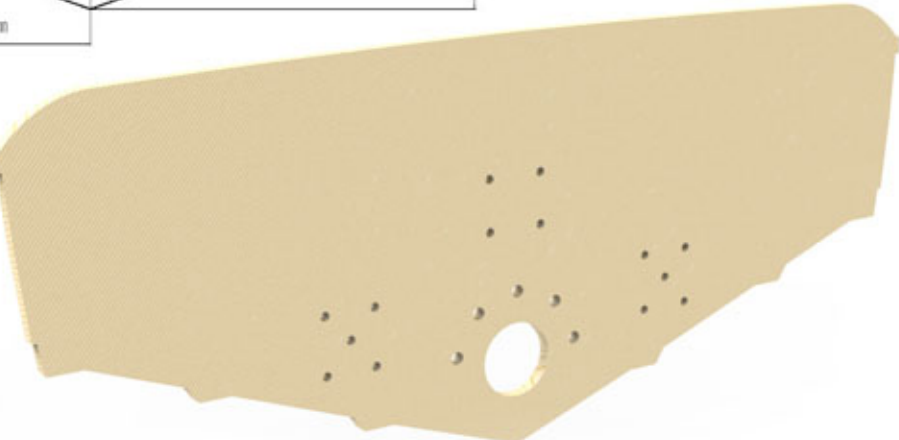
**Congratulations, The Blade-X Surface Drive Assembly Is Now Completed!**

# Install Blade-X To Your Hull

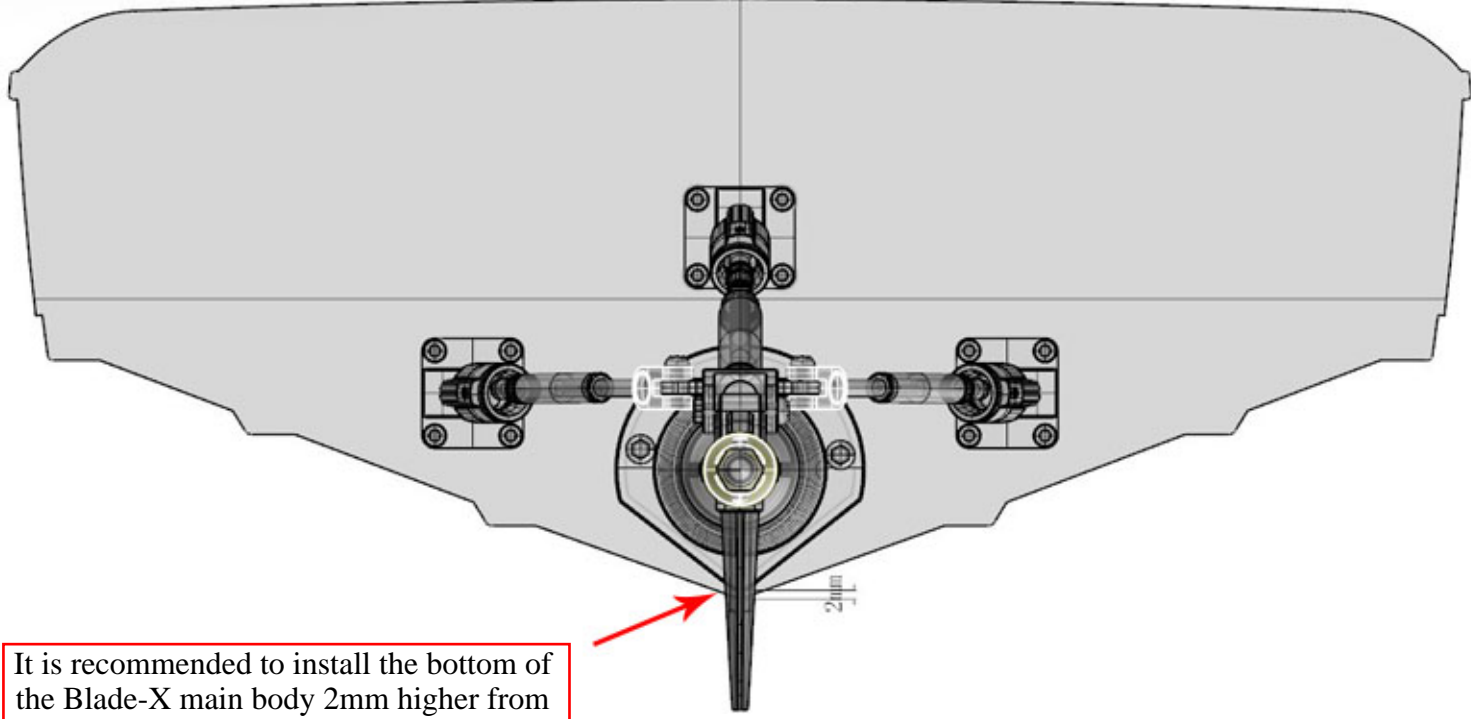
## Recommended Transom Hole Drilling Template



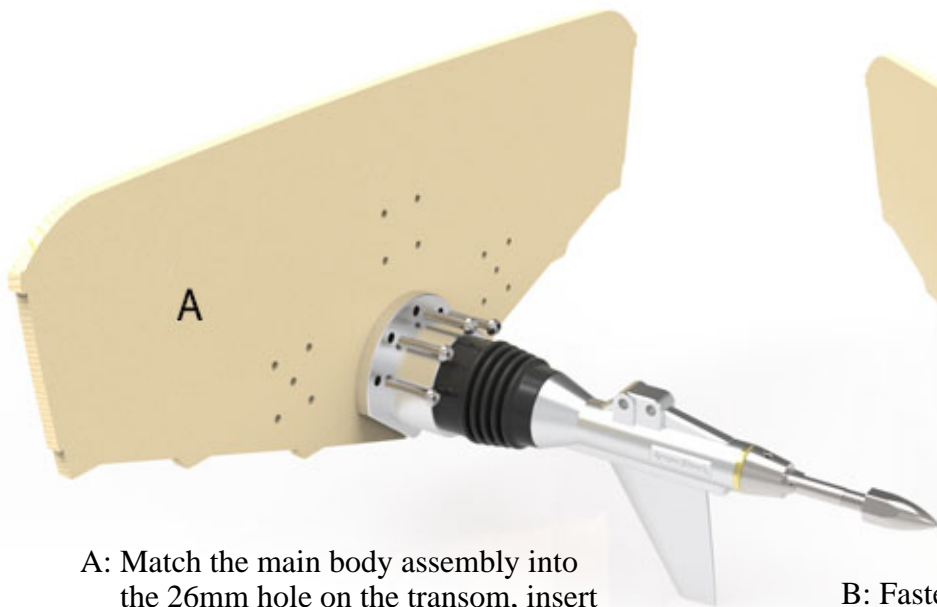
You will need a hole opener in diameter of 26mm to open the largest hole in the transom for the stuffing tube holder to be properly installed.



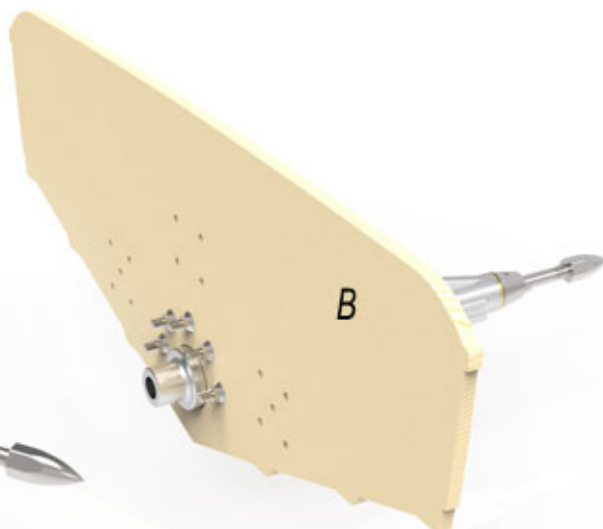
**Drilling Tip:** In order to drill the five of 4.5mm installation holes in correct spots, first drill a 4mm hole at the spot of 31mm above the center line from the bottom of the hull, then, use the hole opener to drill the 26mm hole via the 4mm hole, then, attached stuffing tube holder onto the 26mm hole and hold it still against the transom, use a marker pen to mark the five of 4.5mm holes via the stuffing tube holder and drill them.



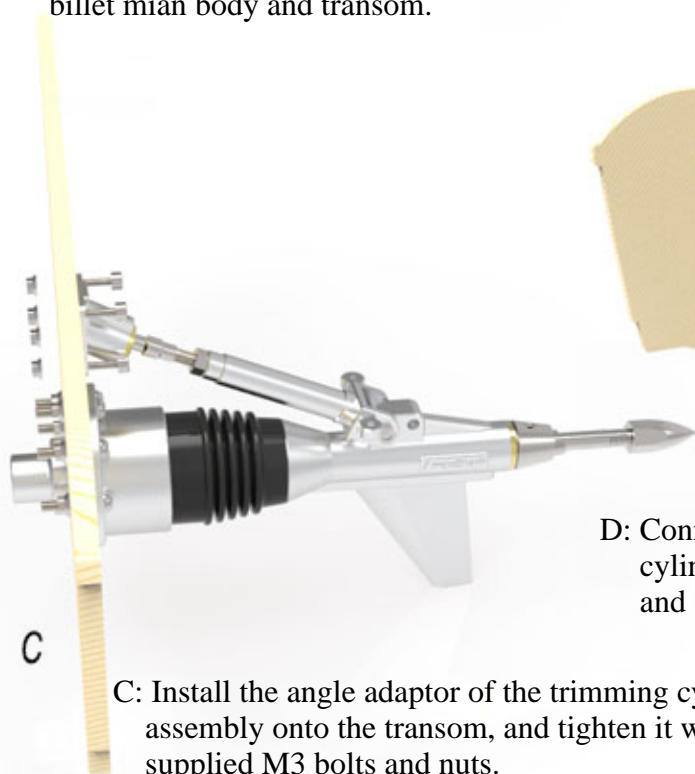
It is recommended to install the bottom of the Blade-X main body 2mm higher from the bottom of the hull.



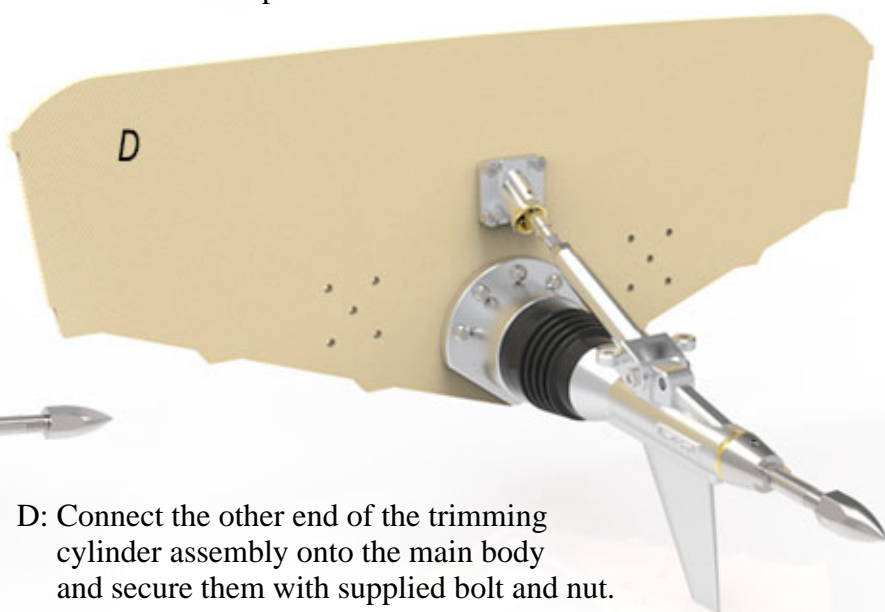
A: Match the main body assembly into the 26mm hole on the transom, insert the five of M4 installation bolts into the billet main body and transom.



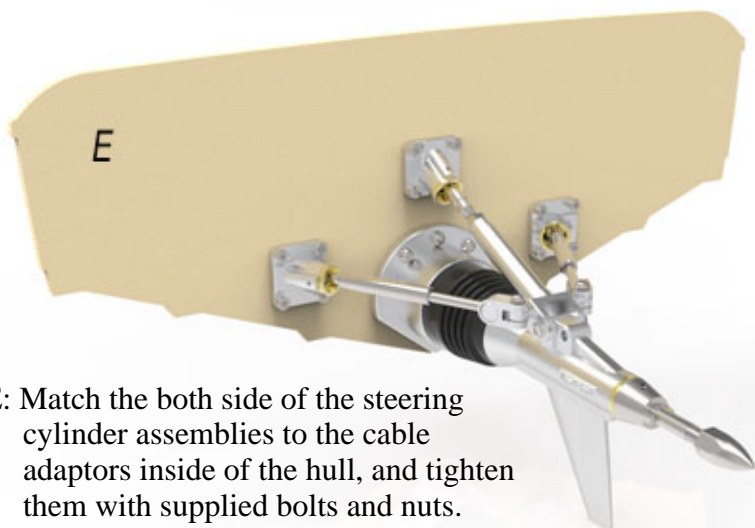
B: Fasten the five of M4 nuts from inside of the hull to secure the Blade-X main body firmly in place.



C: Install the angle adaptor of the trimming cylinder assembly onto the transom, and tighten it with the supplied M3 bolts and nuts.



D: Connect the other end of the trimming cylinder assembly onto the main body and secure them with supplied bolt and nut.



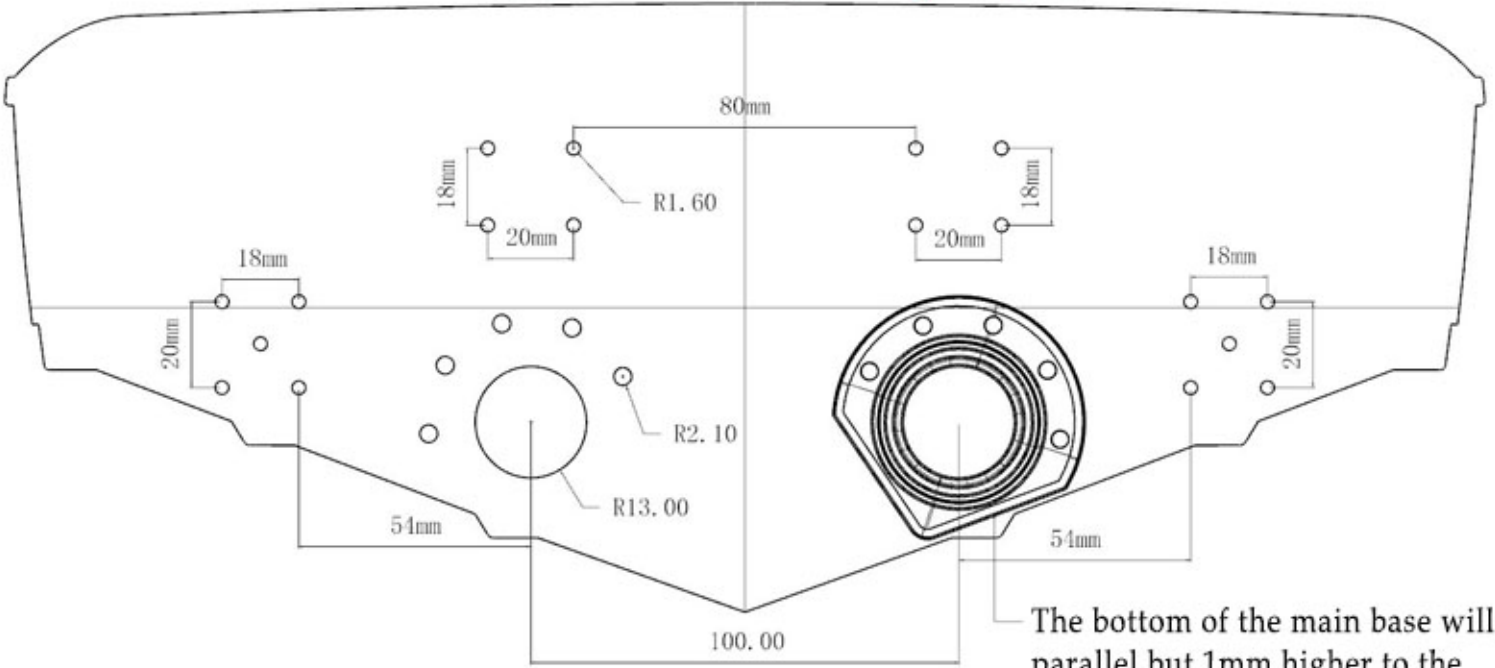
E: Match the both side of the steering cylinder assemblies to the cable adaptors inside of the hull, and tighten them with supplied bolts and nuts. connecting the other end of the steering cylinder assembly to the mounting arms on the trimming cylinder, and secure them with M3 bolts.



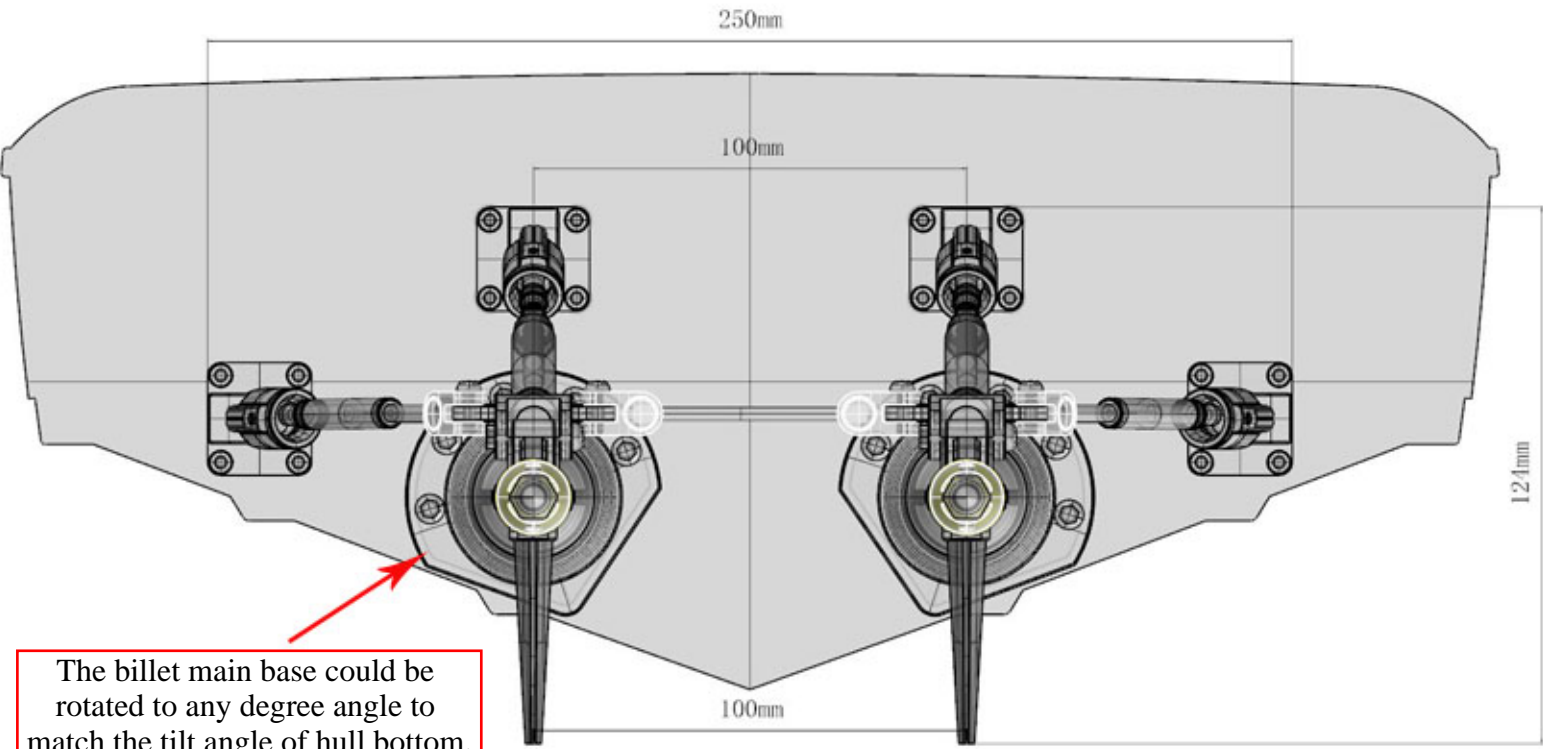
F: Install the plastic cable housing onto the cable adaptors, and tighten the M3 allen set screw from both side to hold the plastic cable housing firmly inside of the adaptors.

# Twin Blade-X Set Up Guide

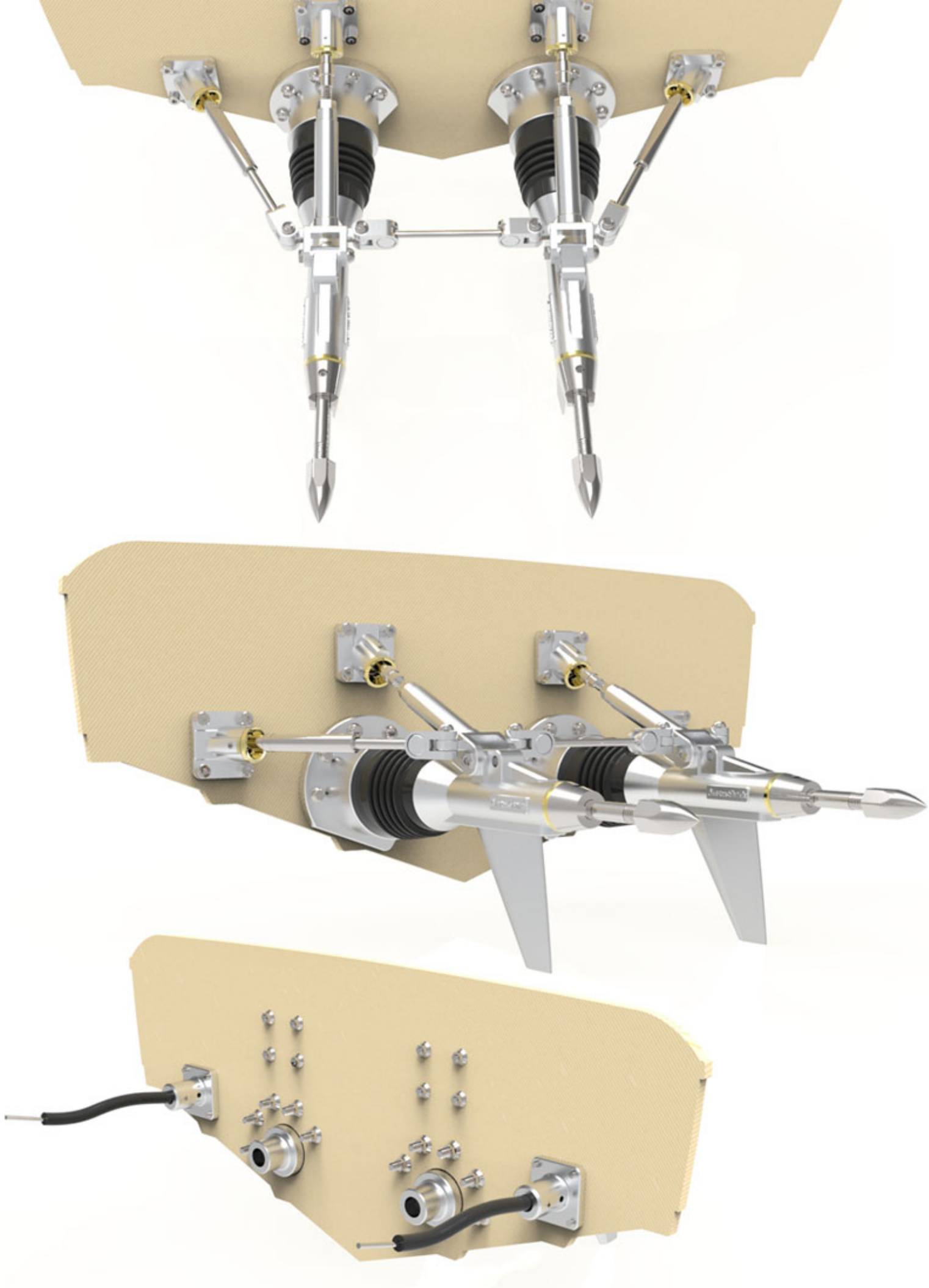
## Recommended Holes Drilling Template



## Dimension Guide On Transom









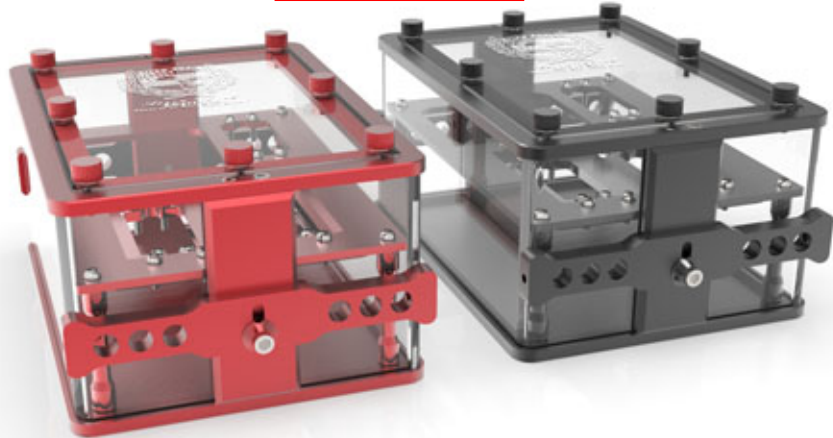
# Steering Control Set Up Guide

Arrow Shark offers both smart servo tray and smart box series for the convenience steering control set up for either single or twin application of Blade-X, we recommend to use two of 20KG metal gear servos to control single set up blade-X, and use two of 25KG metal gear servos for controlling of twin set up Blade-X.

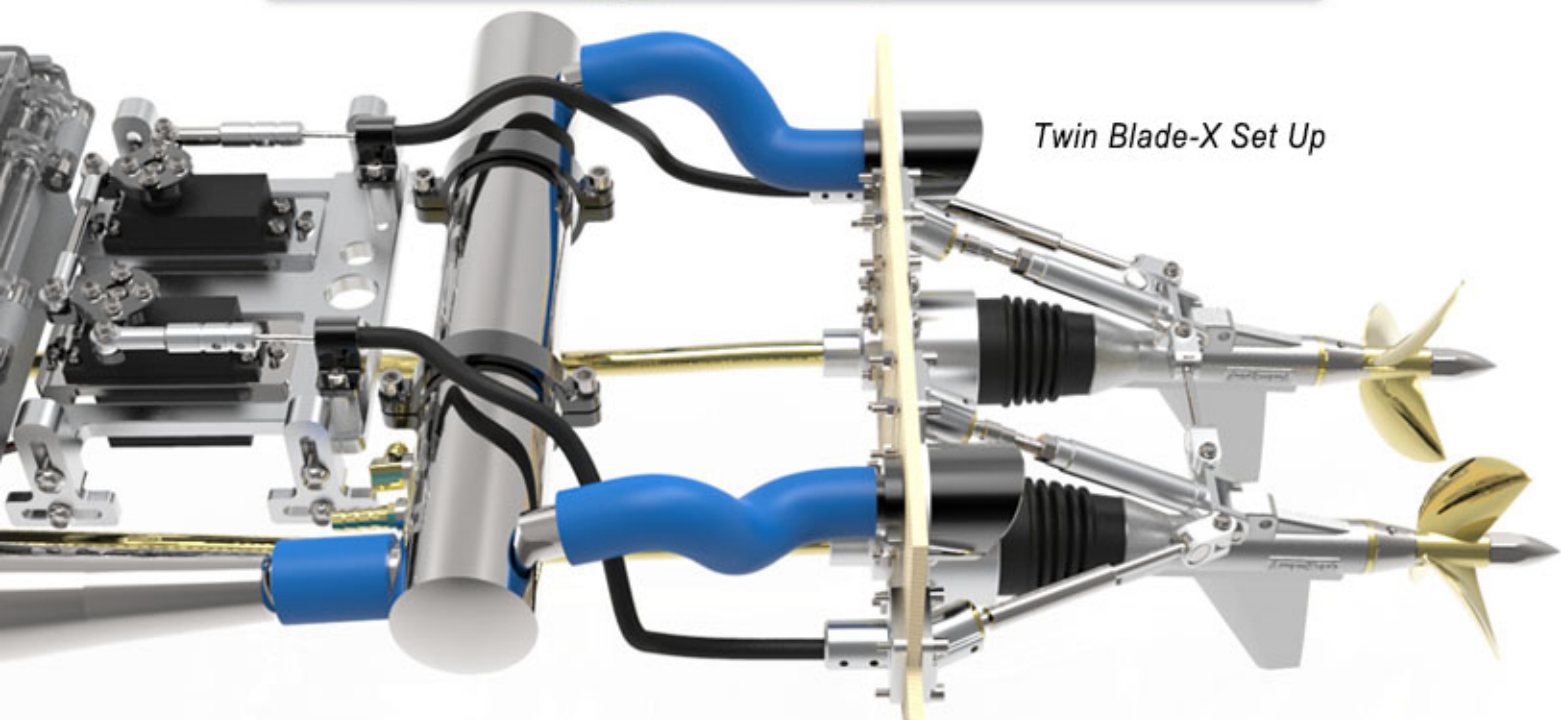
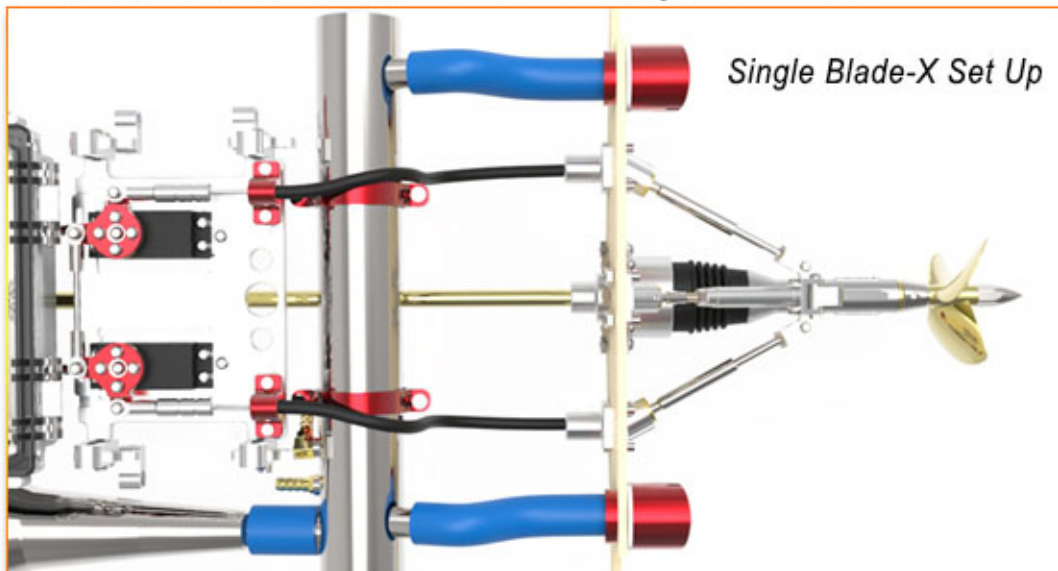
**Smart Servo Tray**



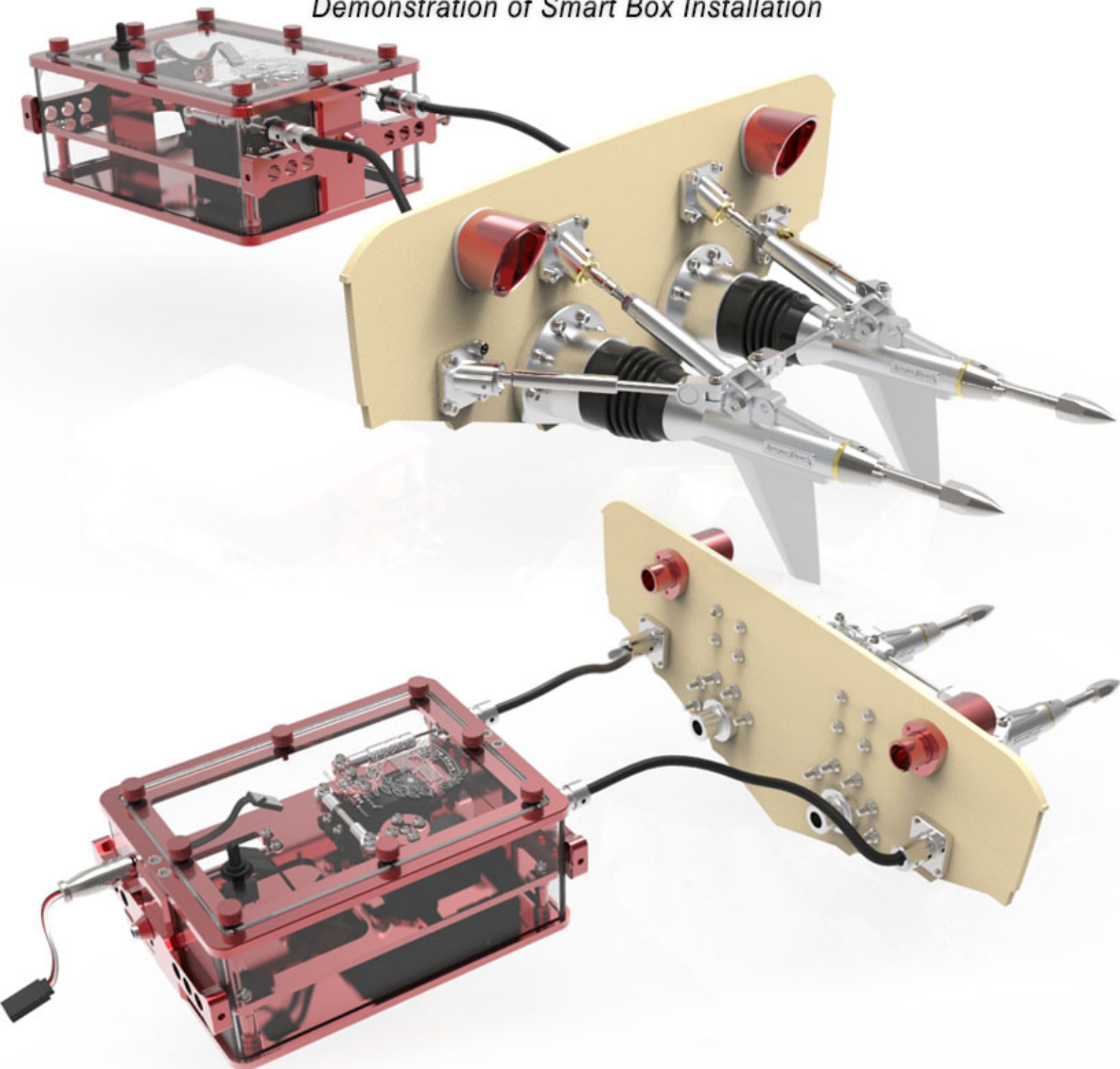
**Smart Box-X**



## Demonstration of Smart Servo Tray Installation



## Demonstration of Smart Box Installation



## Propeller Thrust Angle Adjustment Tips

Angling the prop up will lift the front of your boat, generally resulting in less hull in the water and faster speed. Angling the prop too high though will cause instability and the prop may "ventilate" or spin without gripping because it's too close to the surface.

Angling the prop down will lift the back of the boat and keep more hull in the water generally giving more stable running but with less speed.

Trying different prop angles will find the one that works best for your boat in different water conditions. To start with, set the Blade-X surface drive at straight angle see how the boat runs, then according to its performance, you can try to adjust the thrust angle up or down at just one or two degree a time to see what effect it has, and try again until it reaches the performance result of your satisfaction.

Note: For the twin set up Blade-X, the amount of degrees on the thrust angle you adjust, must be identical on both drives.



*There is no Best, only Better!*



*Arrow Shark*  
**RC Marine**