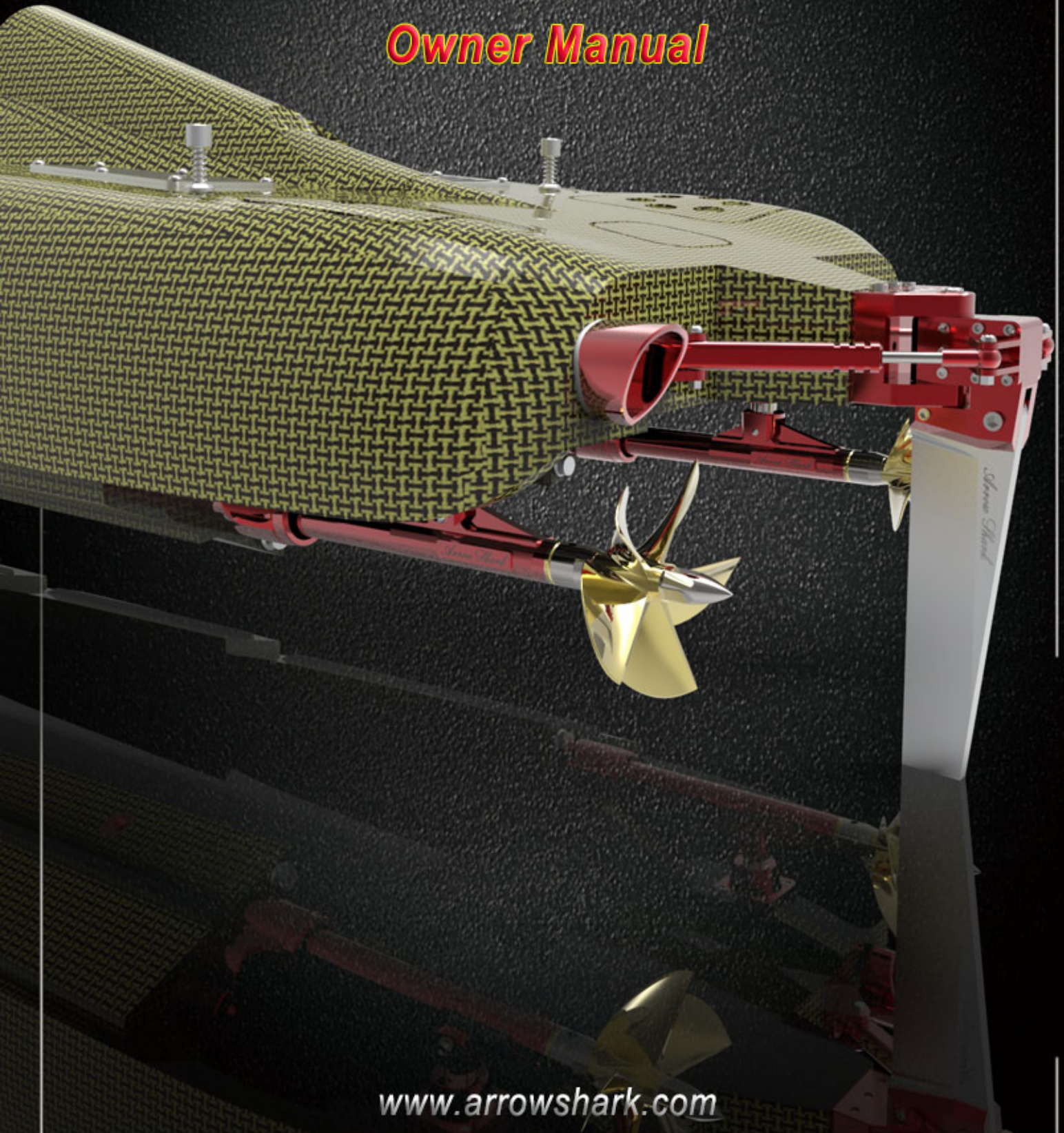


Arrow Shark The X-Partner

Owner Manual

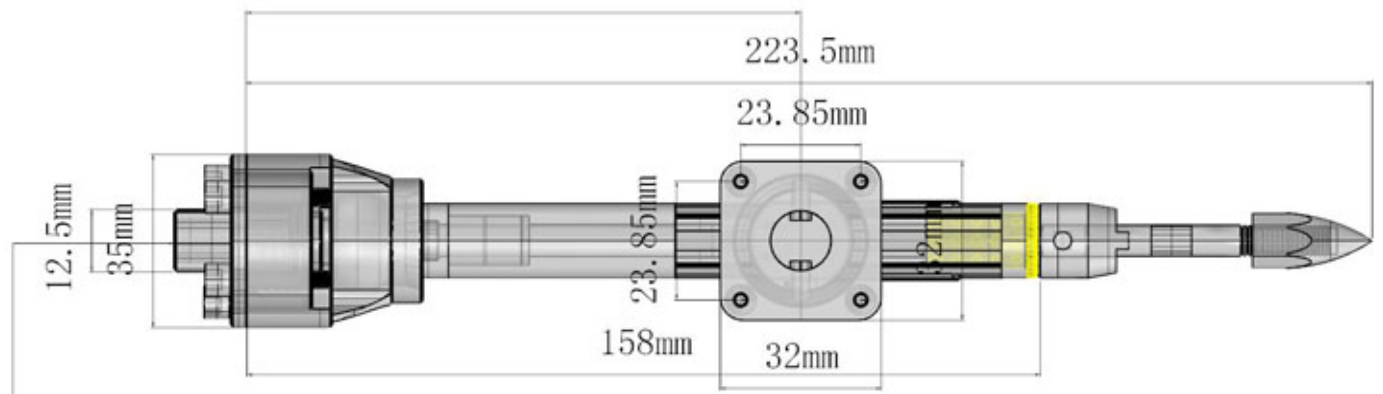
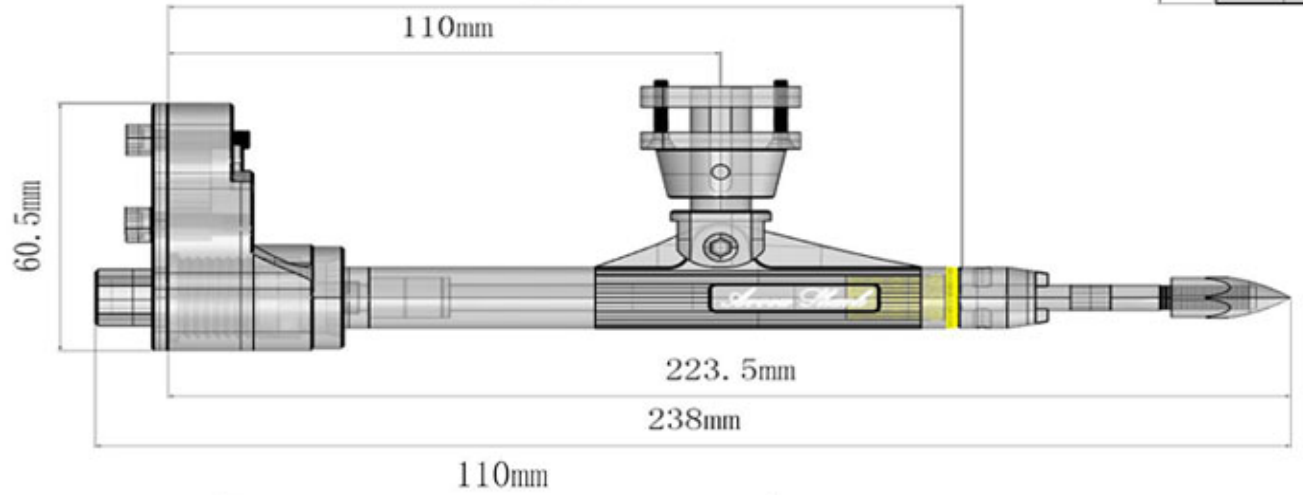
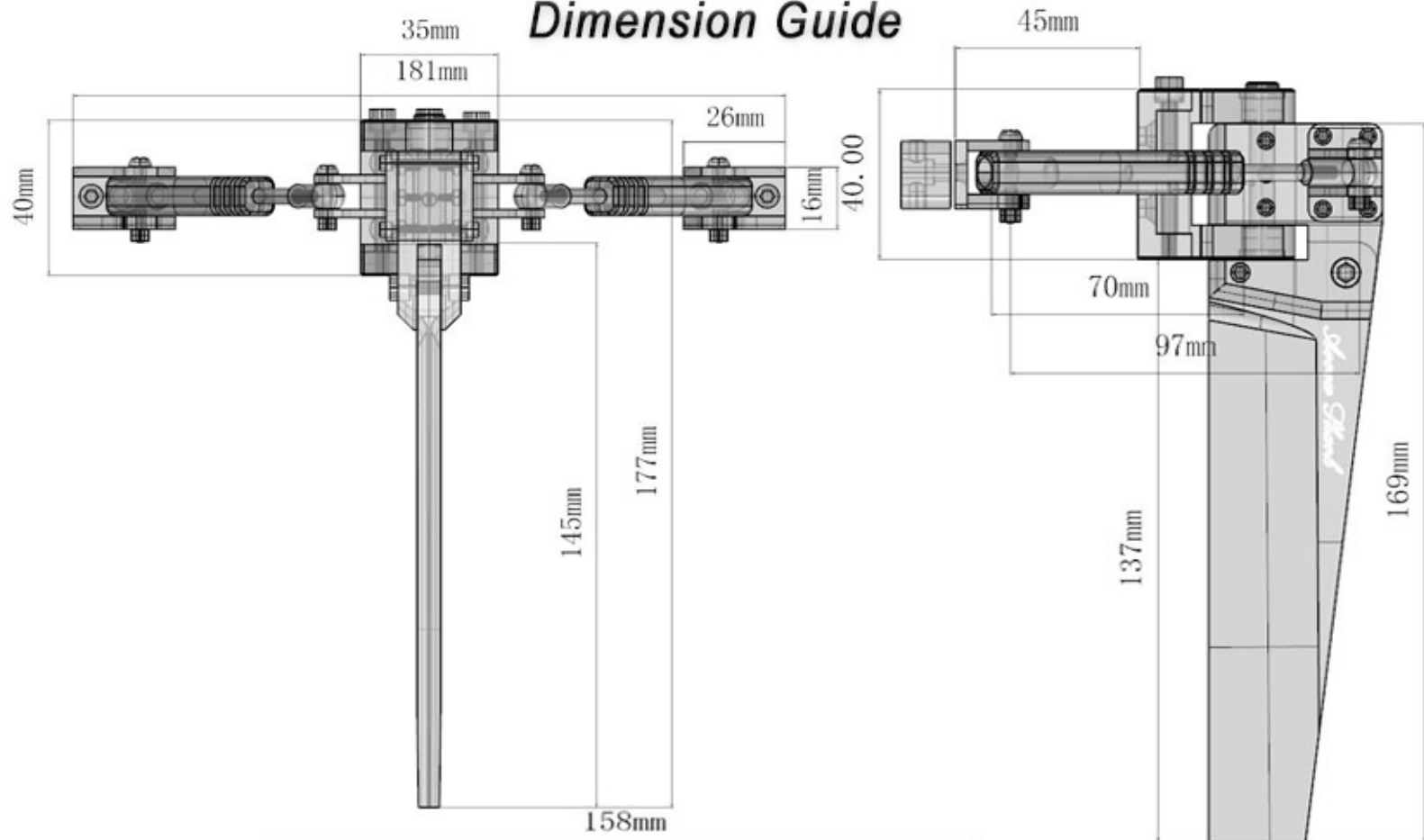


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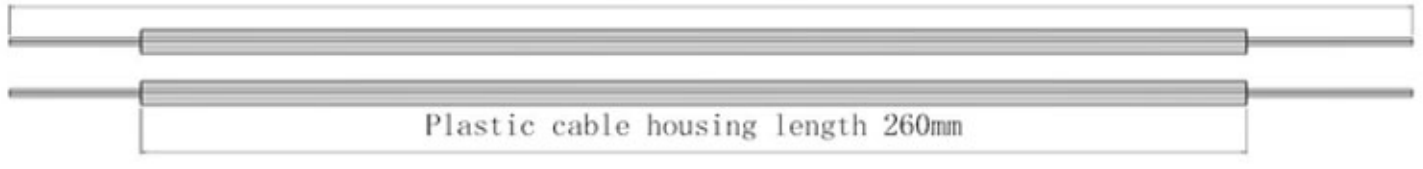
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Dimension Guide



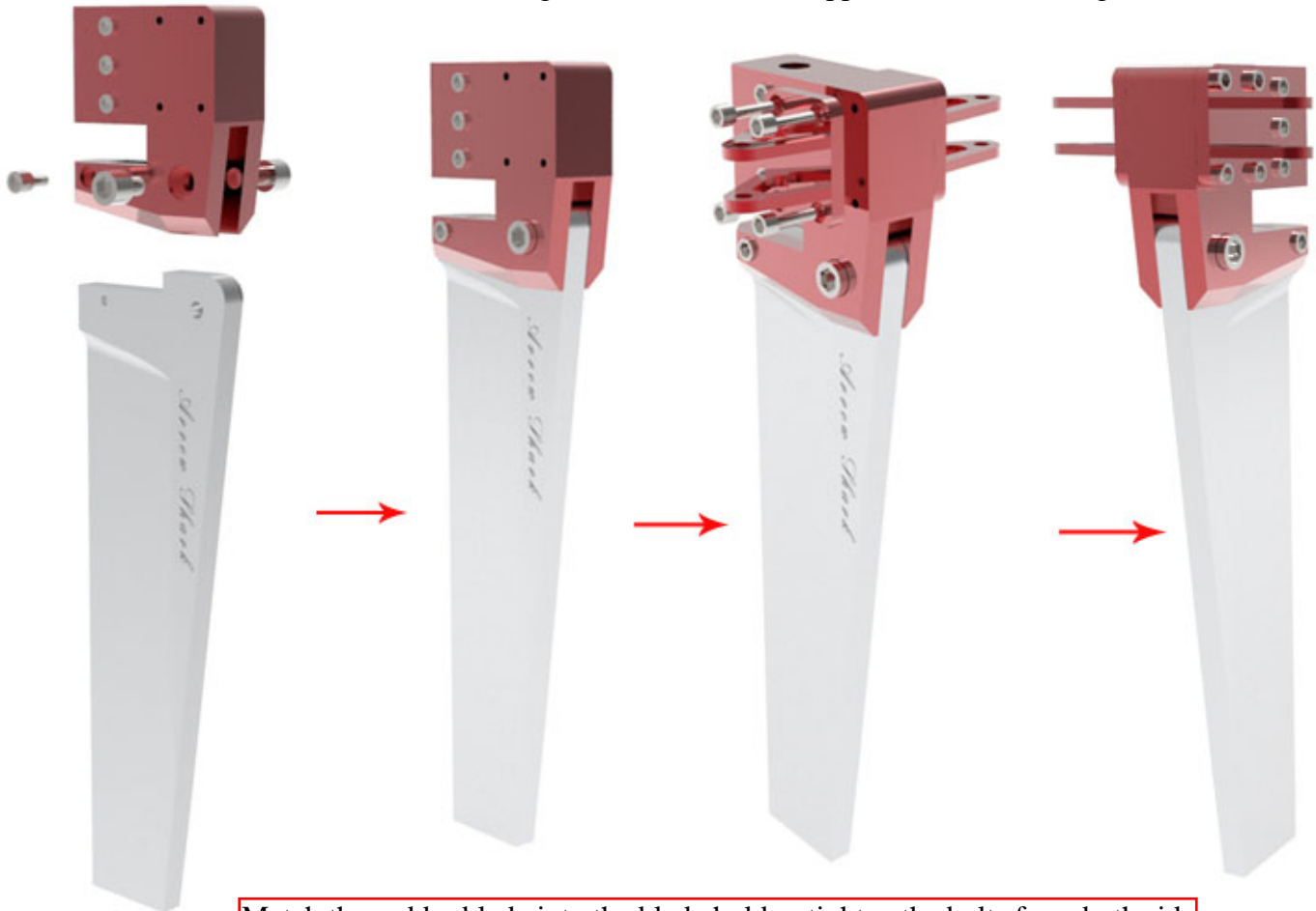
Center hole accepts 9mm diameter propshaft

Steering cable length 330mm



Steerable Rudder Assembly

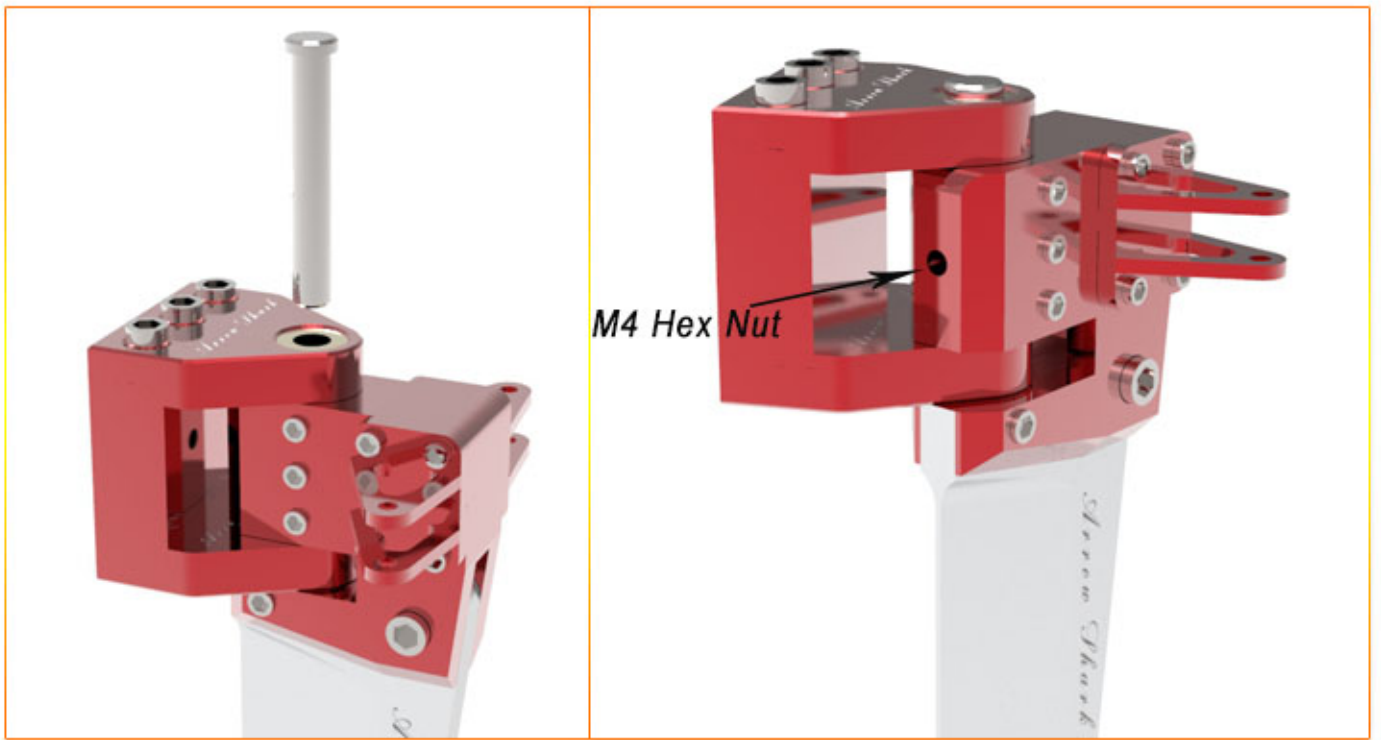
Note: All bolts in following installation must be applied with med strength loctite.



Match the rudder blade into the blade holder, tighten the bolts from both side of the holder into the blade, install the hydraulic steering rams adaptors onto the blade holder and secure them with supplied bolts.

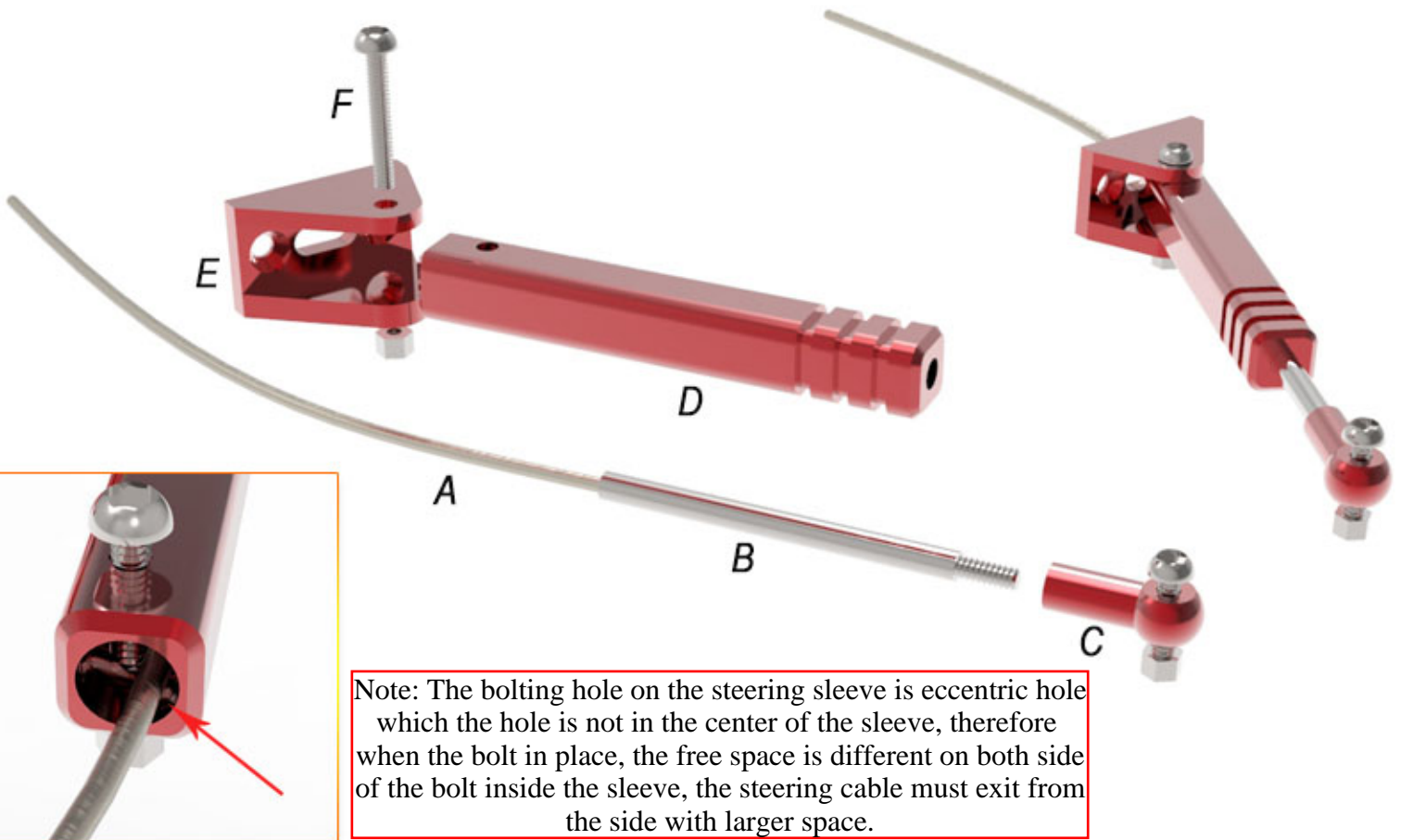


A: Transom Bracket, B: Quick Release Bracket, C: Copper Bushes, D: Mounting Bolts, E: Steering Pivot Pin.



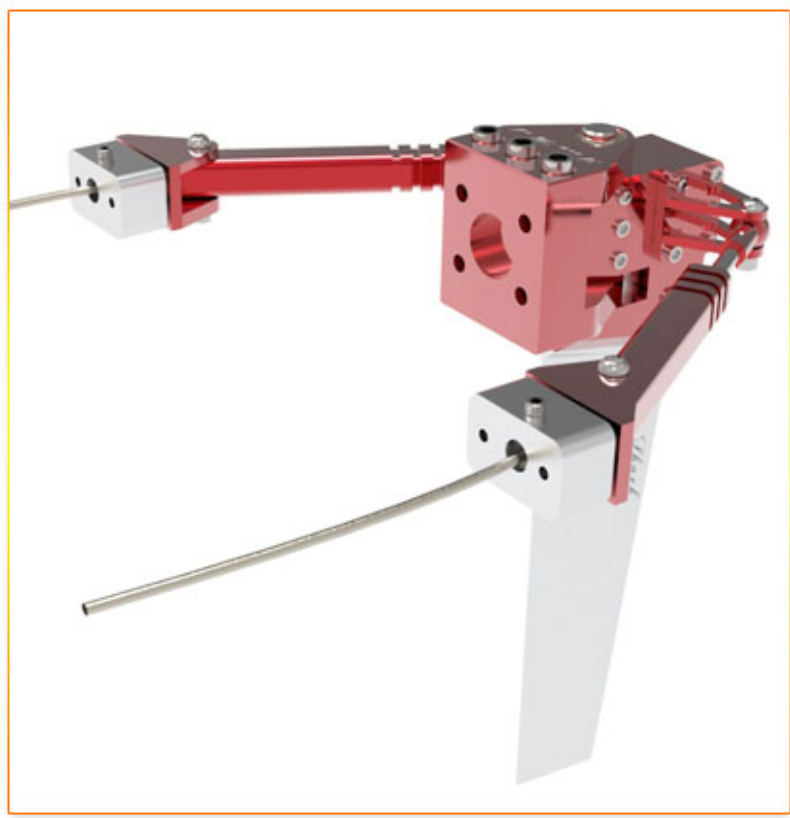
Install both copper bushes into the quick release bracket, match the quick release bracket into the transom bracket, and secure them with the M4x35 bolts from the top, then insert the blade holder assembly into the quick release bracket as shown in above left picture, slide the steering pivot pin into both quick release bracket and blade holder assembly to hold them together and secure it with the M4 allen set screw from the side of blade holder as shown in above right picture.

Hydraulic Steering Rams Assembly

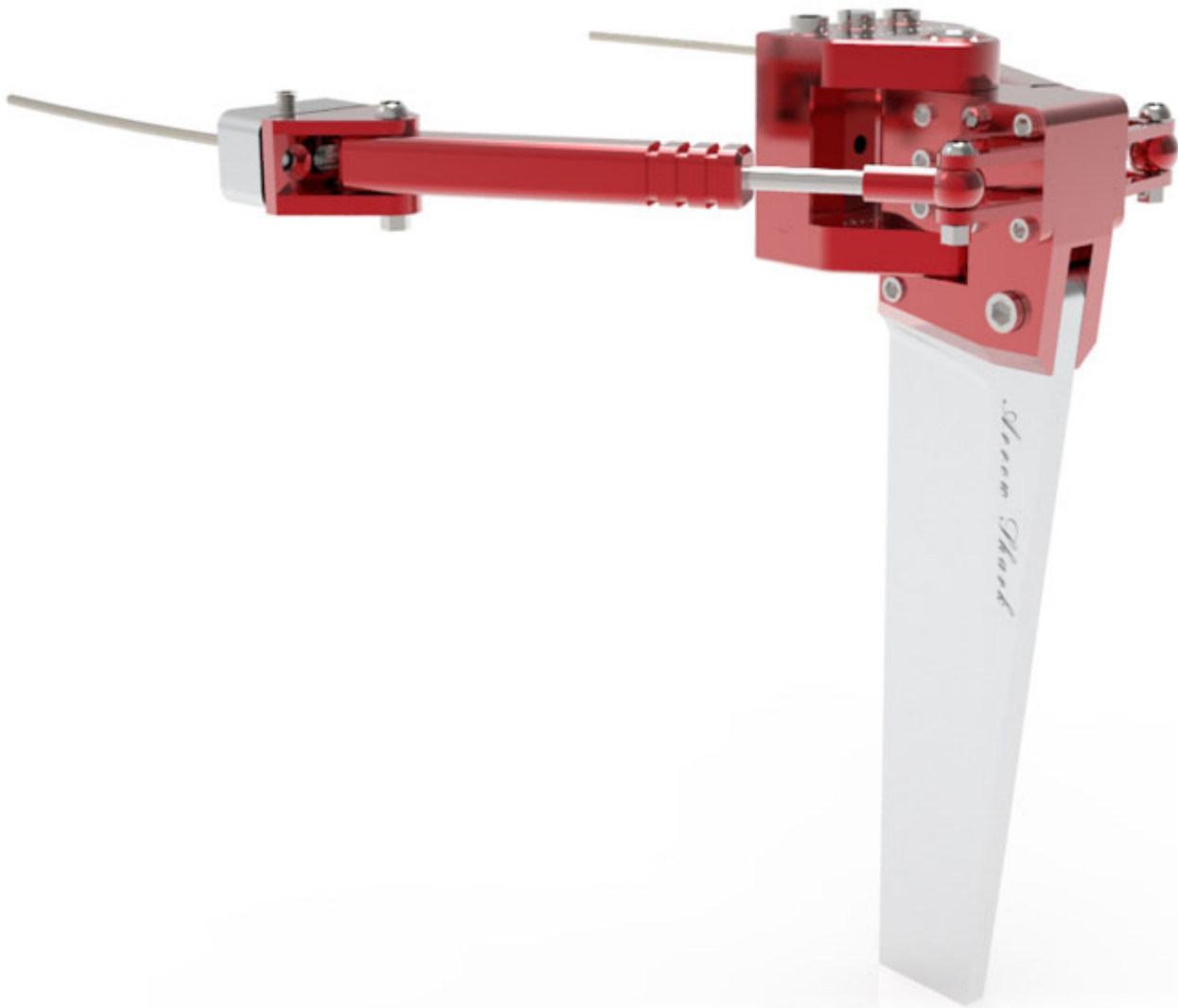


Note: The bolting hole on the steering sleeve is eccentric hole which the hole is not in the center of the sleeve, therefore when the bolt in place, the free space is different on both side of the bolt inside the sleeve, the steering cable must exit from the side with larger space.

Use epoxy adhesive to glue the steering cable (#A) into the steering shaft (#B), screw the steering shaft into the ball joint connector (#C), slide the steering shaft assembly into the steering sleeve (#D), match the steering sleeve into the angle bracket (#E) and secure it with the bolt and nut (#F) from the top.



Install both hydraulic steering rams into the adaptors on the blade holder and secure them with supplied bolts and nuts, match the plastic cable housing holder with the angle brackets and secure them with supplied bolts.

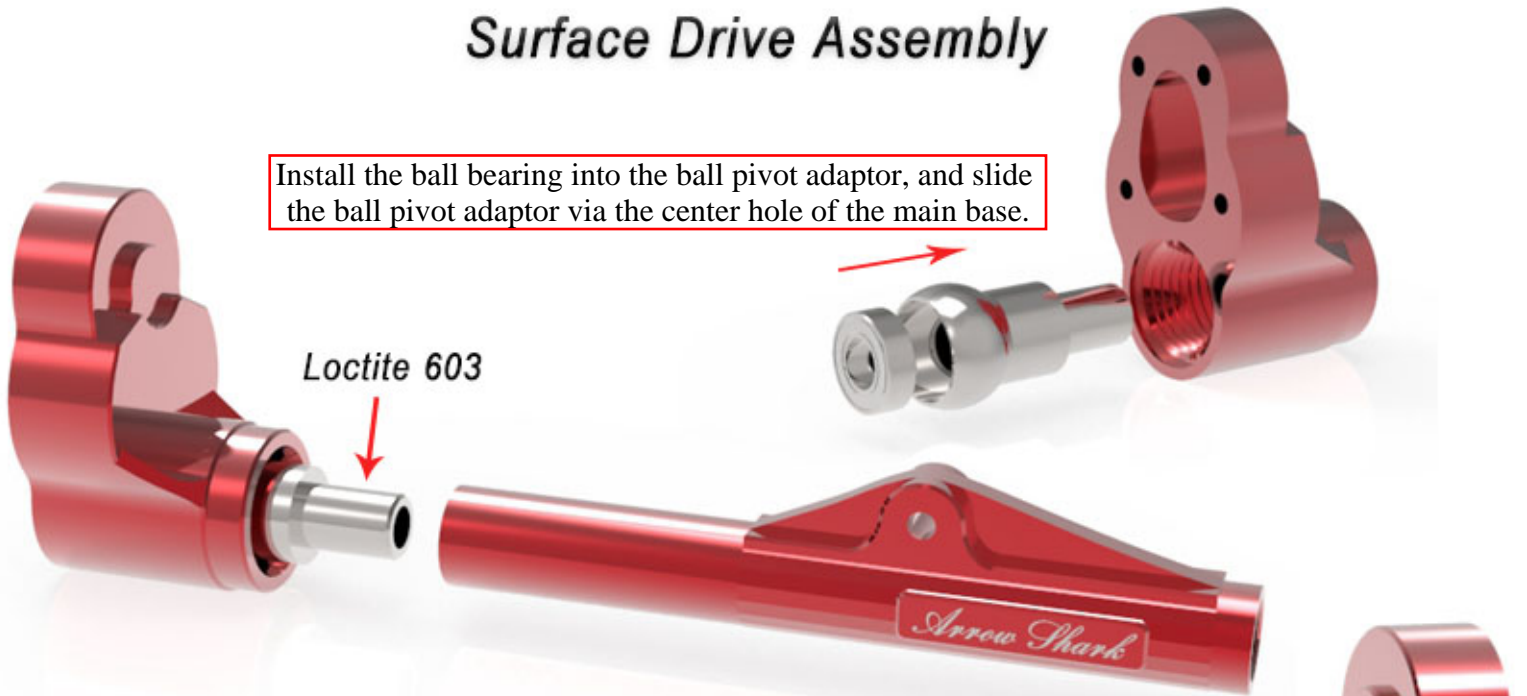


Congratulations, the steerable rudder assembly is now completed!

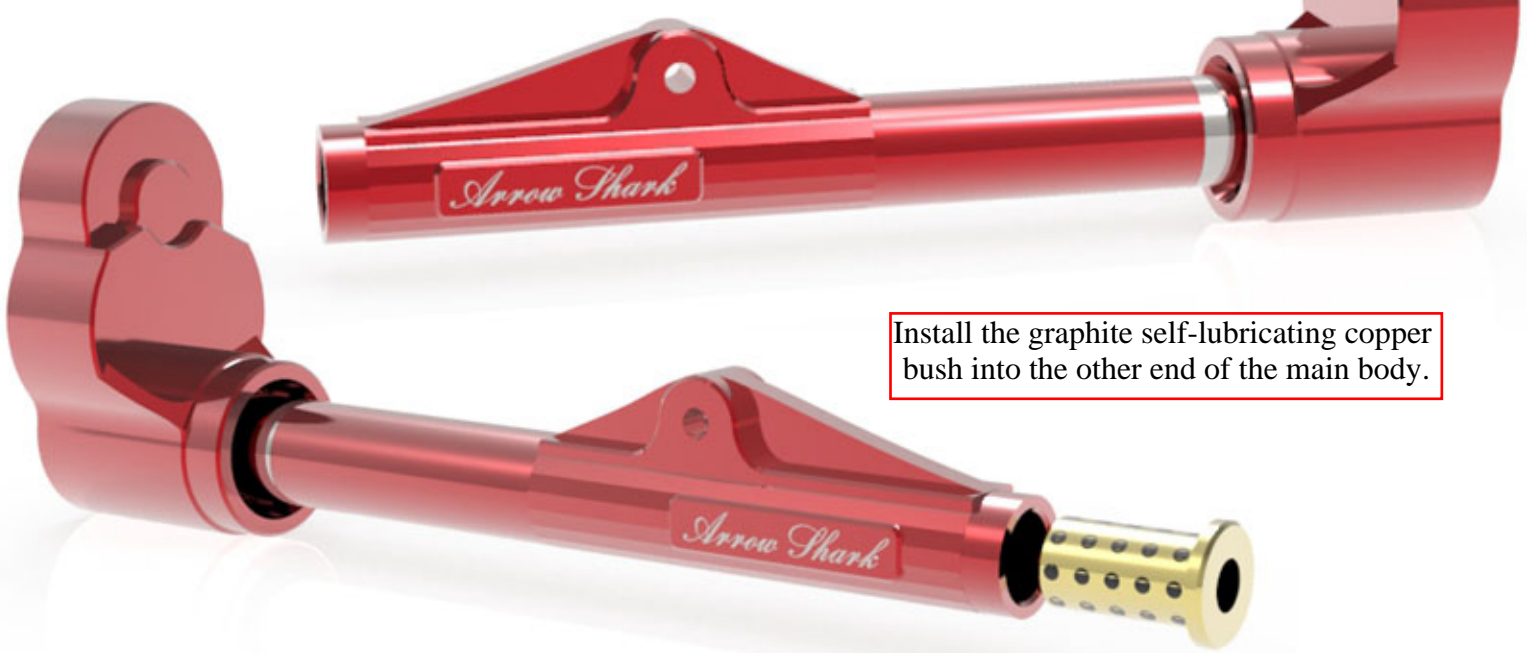
Surface Drive Assembly

Install the ball bearing into the ball pivot adaptor, and slide the ball pivot adaptor via the center hole of the main base.

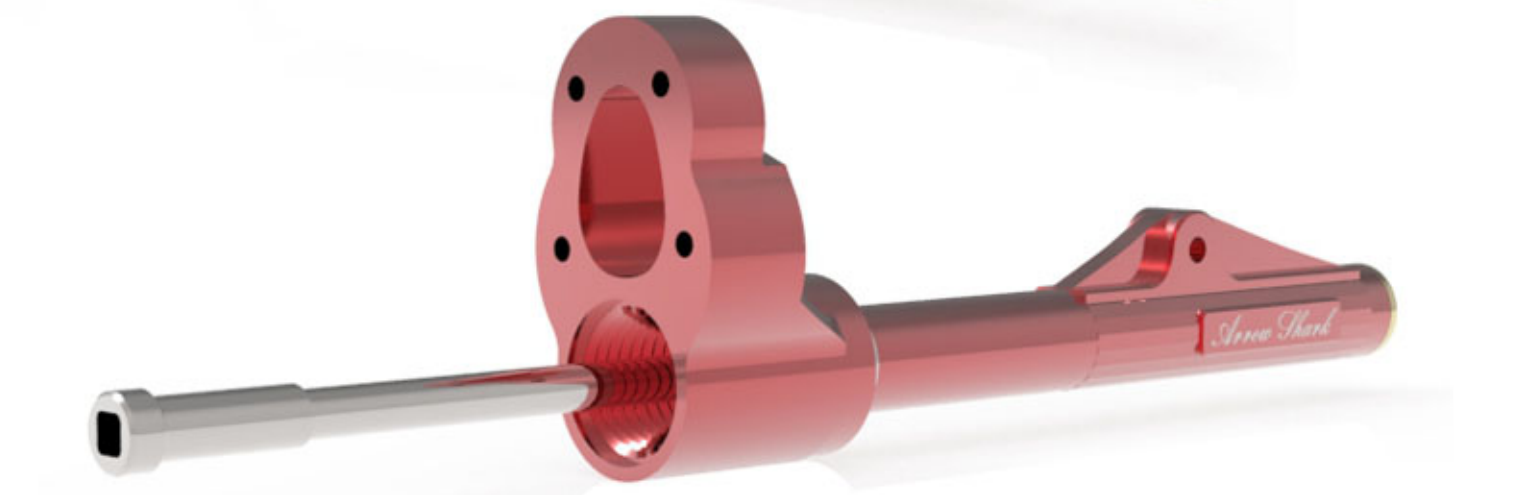
Loctite 603



Apply some loctite 603 retaining adhesive at front area of pivot adaptor before press it into the main body.



Install the graphite self-lubricating copper bush into the other end of the main body.



Install the propshaft into the main body from back side of the main base as shown in the above picture.

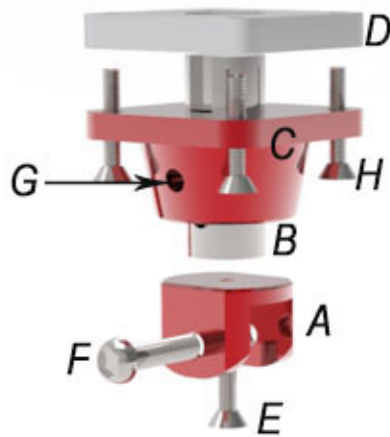
Install the shaft dog onto the propshaft and secure it with the M4 allen set screw, screw the prop-nut from end of the propshaft.

M4 Allen Set Screw

Screw the main base cover into the main base.

Match the billet gasket plate onto the back of the main base.

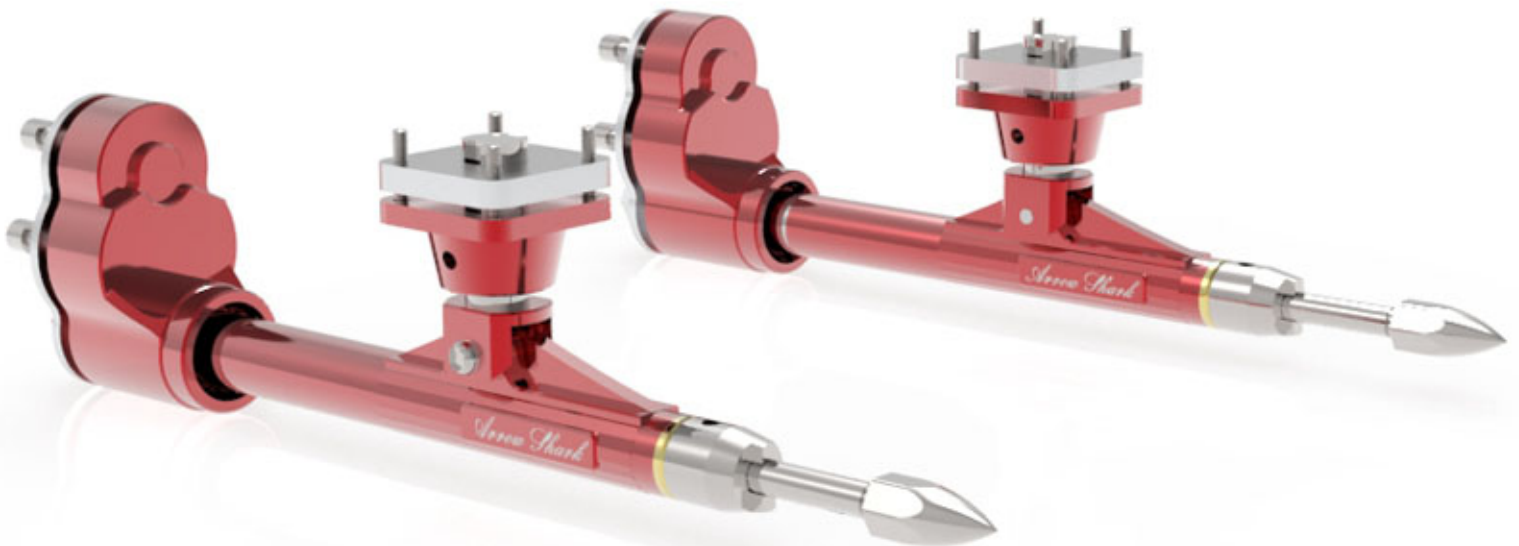
Top Support Bracket Assembly



Use the bolt (#E) to connect the mounting bracket (#A) with hydraulic rod (#B), slide the hydraulic rod assembly into the support base (#C, #D) and secure the rod in the mounting base by tighten the M4 Allen Set Screws (#G) at both side. Using (#H) bolts to hold (#C and #D) together in the hull.



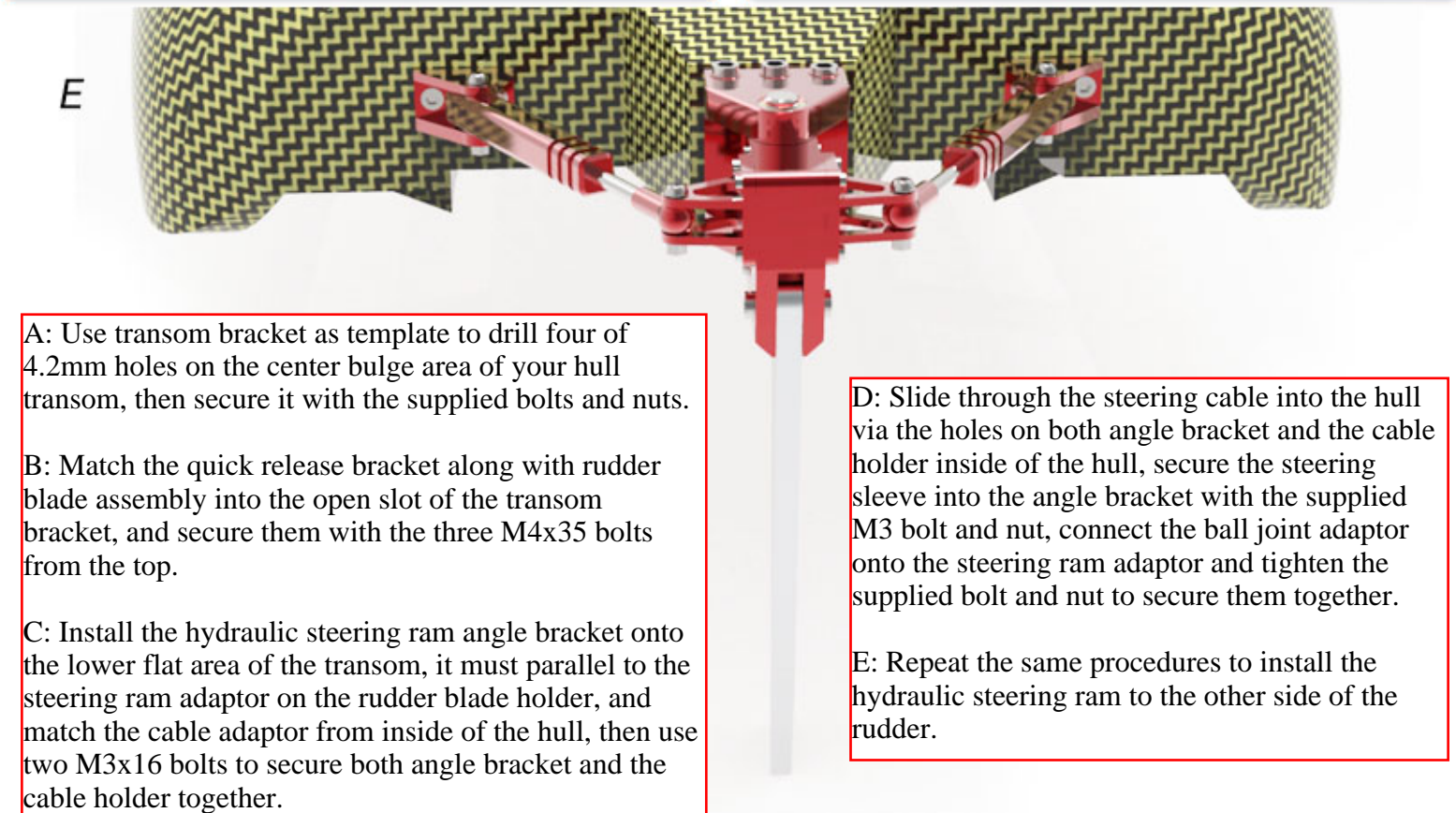
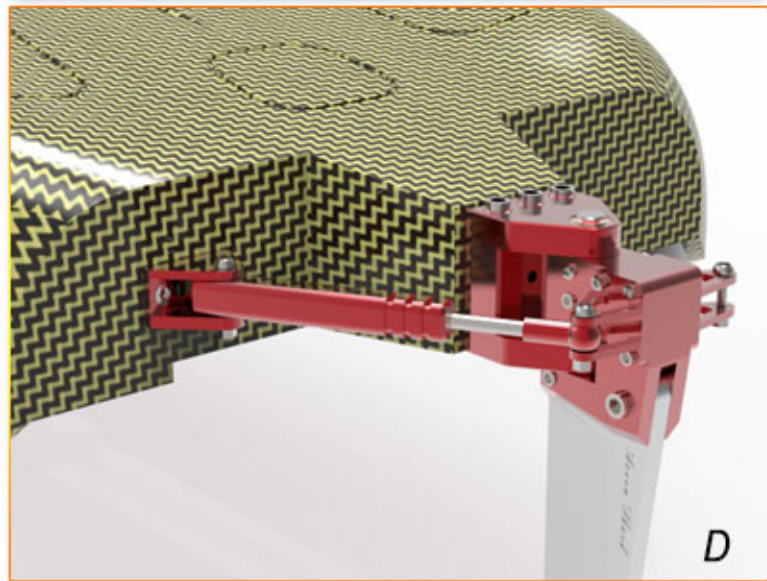
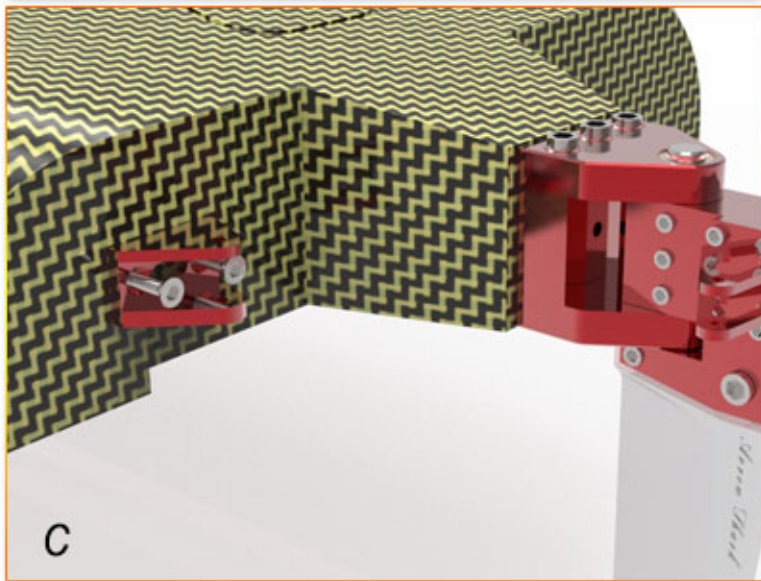
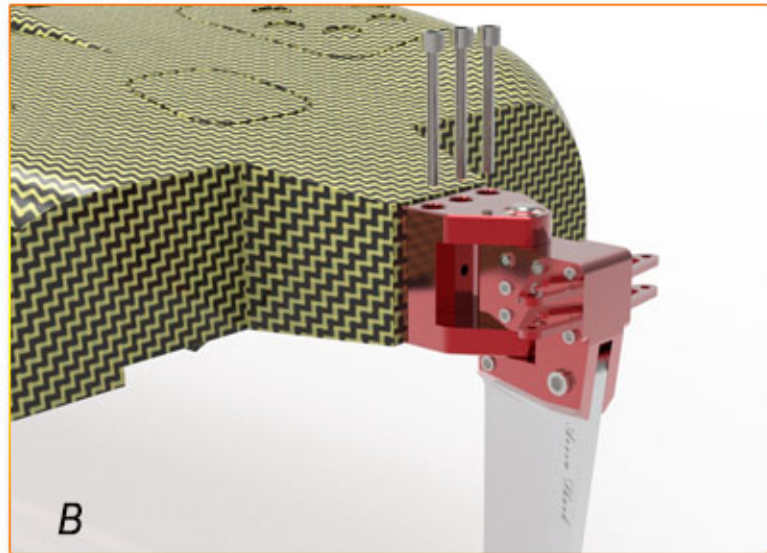
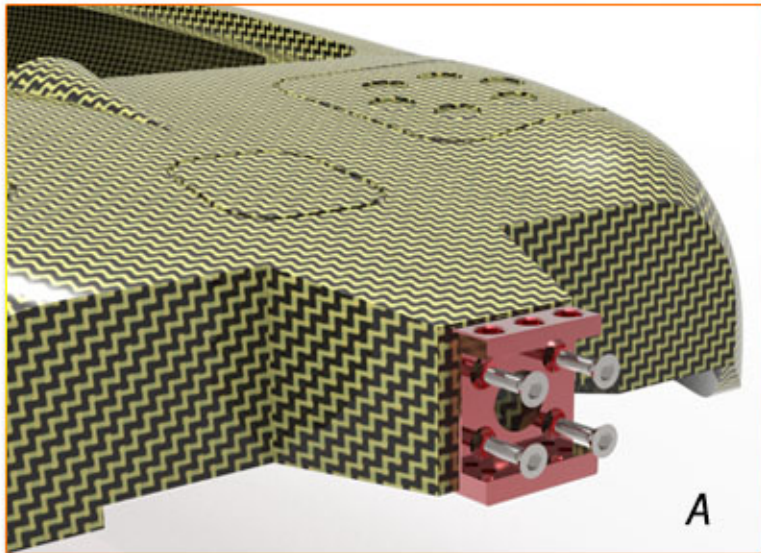
Use (#F) bolt to connect the top support bracket assembly onto the main body of the drive, loosening the (#G) hex nuts, you will be able to move the main body up and down for the prop thrust angle adjusting.



Repeat the same procedures for the second drive assembly.

Congratulations, the surface drive assembly is now completed!

Install X-Partner To The Hull



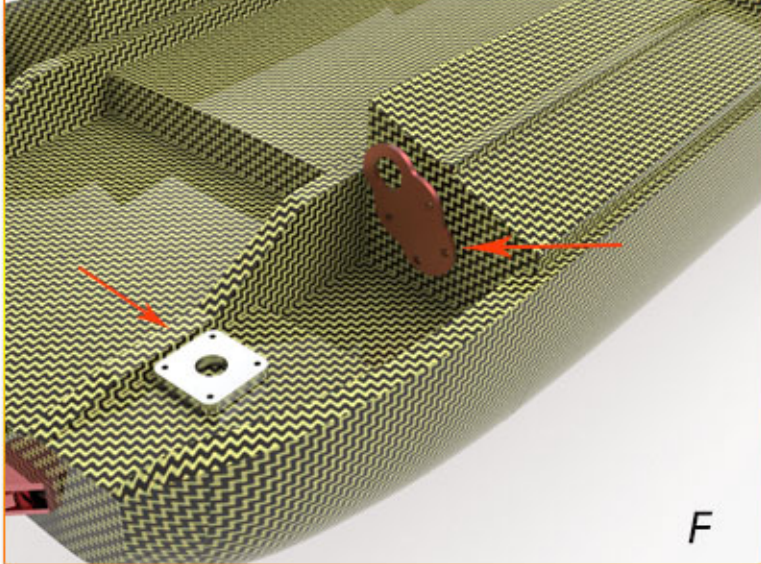
A: Use transom bracket as template to drill four of 4.2mm holes on the center bulge area of your hull transom, then secure it with the supplied bolts and nuts.

B: Match the quick release bracket along with rudder blade assembly into the open slot of the transom bracket, and secure them with the three M4x35 bolts from the top.

C: Install the hydraulic steering ram angle bracket onto the lower flat area of the transom, it must parallel to the steering ram adaptor on the rudder blade holder, and match the cable adaptor from inside of the hull, then use two M3x16 bolts to secure both angle bracket and the cable holder together.

D: Slide through the steering cable into the hull via the holes on both angle bracket and the cable holder inside of the hull, secure the steering sleeve into the angle bracket with the supplied M3 bolt and nut, connect the ball joint adaptor onto the steering ram adaptor and tighten the supplied bolt and nut to secure them together.

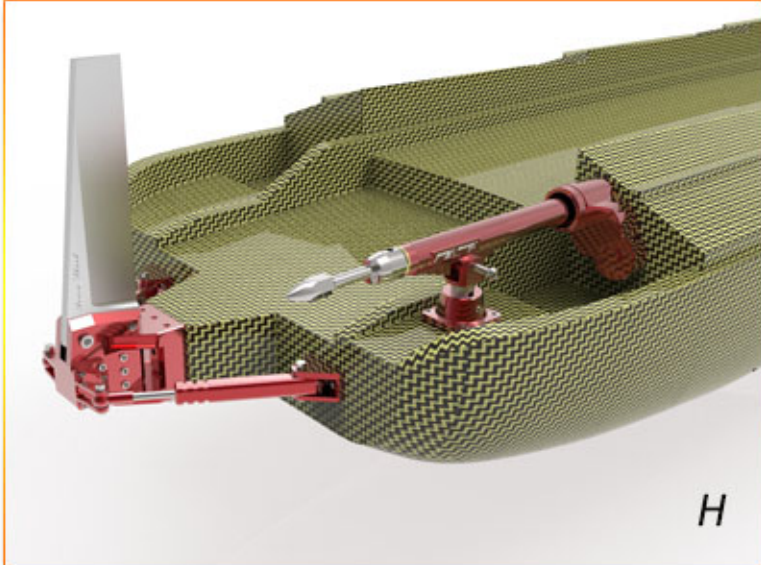
E: Repeat the same procedures to install the hydraulic steering ram to the other side of the rudder.



F



G



H



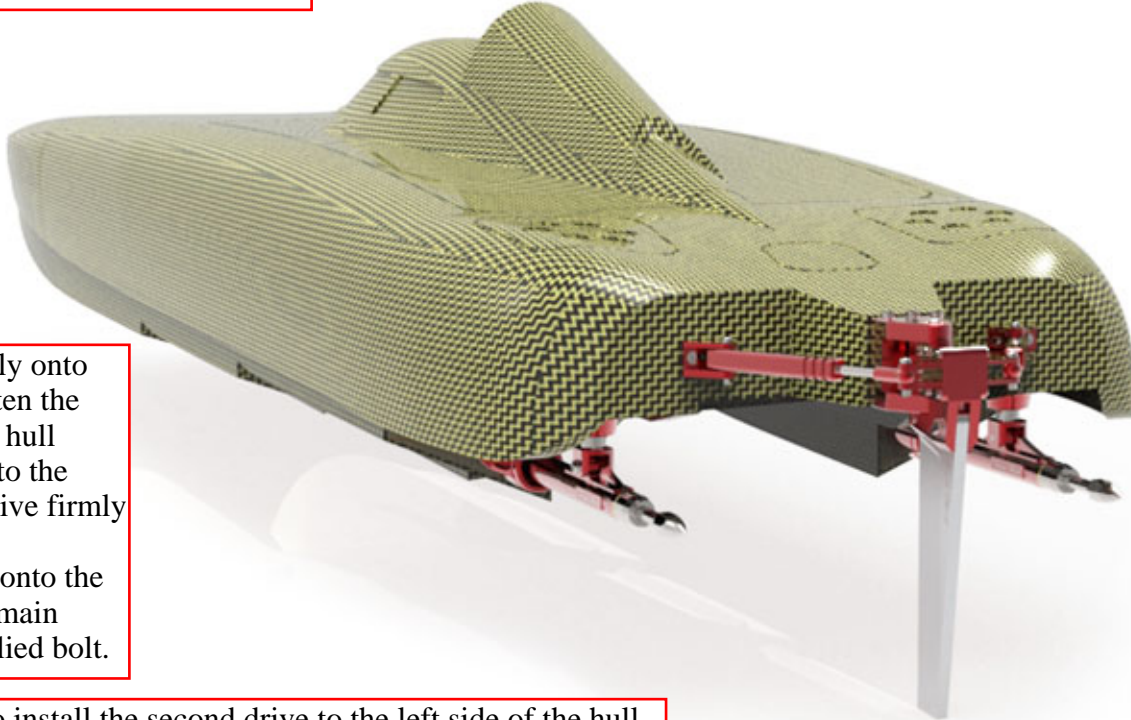
I

F: Place the assembled drive on the bottom of the hull to mark out the installation spot, then using the inside hull mounting plate as the drilling template to drill the installation holes.

G: Install the top support bracket assembly onto the bottom of the hull, and tighten the supplied bolts into the mounting plate inside of the hull.

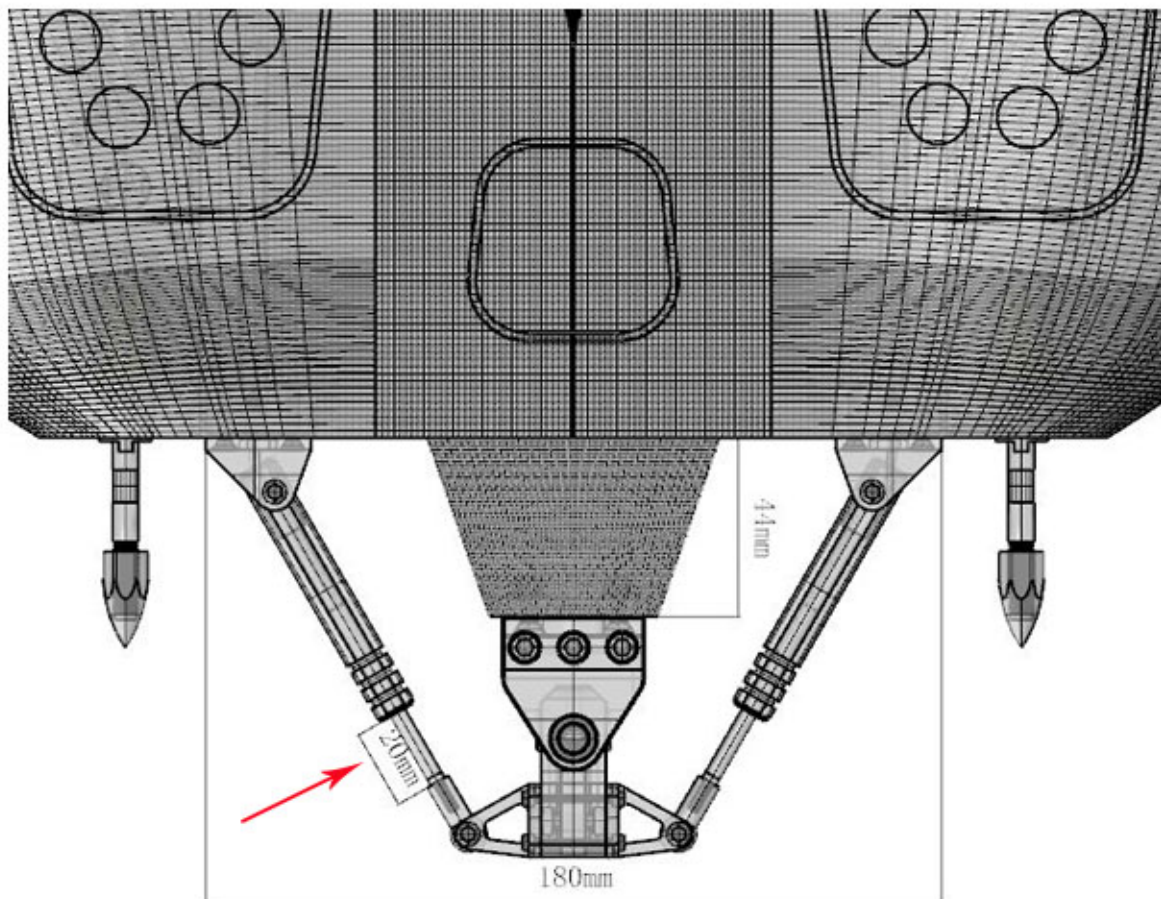
H: Install the main drive assembly onto the transom of the sponson, tighten the supplied bolts from inside of the hull through the billet gasket plate into the main base in order to hold the drive firmly in place.
Connect the top support bracket onto the mounting hole on the top of the main body and secure them with supplied bolt.

I: Repeat the same procedures to install the second drive to the left side of the hull.

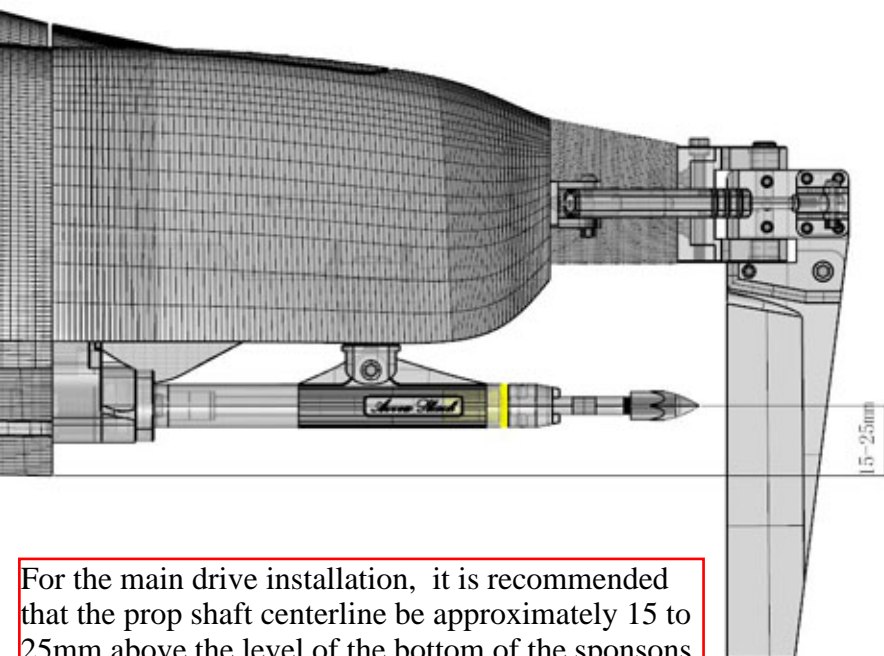


Congratulations, the installation of the X-partner is now completed!

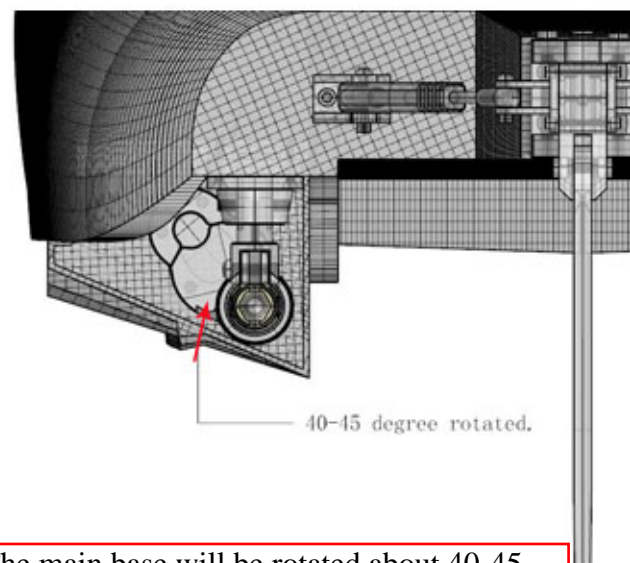
Installation Tips



There are many versions of Mystic hull available in the market, it is recommended to use our X-partner surface drive kit on the hull size range from 60" to 70", no matter what size hull you use, just make sure the movement range on the hydraulic steering rod is setting up correctly for the proper operation, we recommend to set the movement range around 20mm between the entrance point of the steering sleeve and the ball joint adaptor.



For the main drive installation, it is recommended that the prop shaft centerline be approximately 15 to 25mm above the level of the bottom of the sponsons.



The main base will be rotated about 40-45 degrees in order for the proper installation, the bottom of the main base will be installed about 2mm upon the bottom of the sponson.

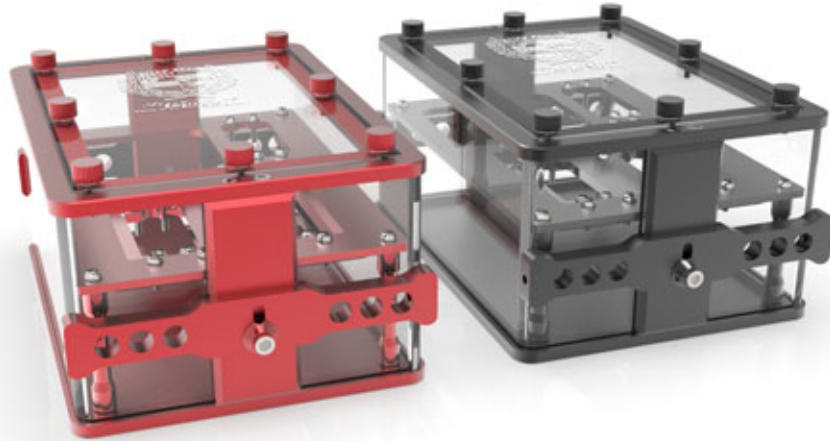
Steering Control Set Up Guide

Arrow Shark offers billet smart servo box along with its accessories for the convenience and professional steering control set up, we recommend to use two of 20KG metal gear servos for the center rudder control.

Servos Tie-Bar



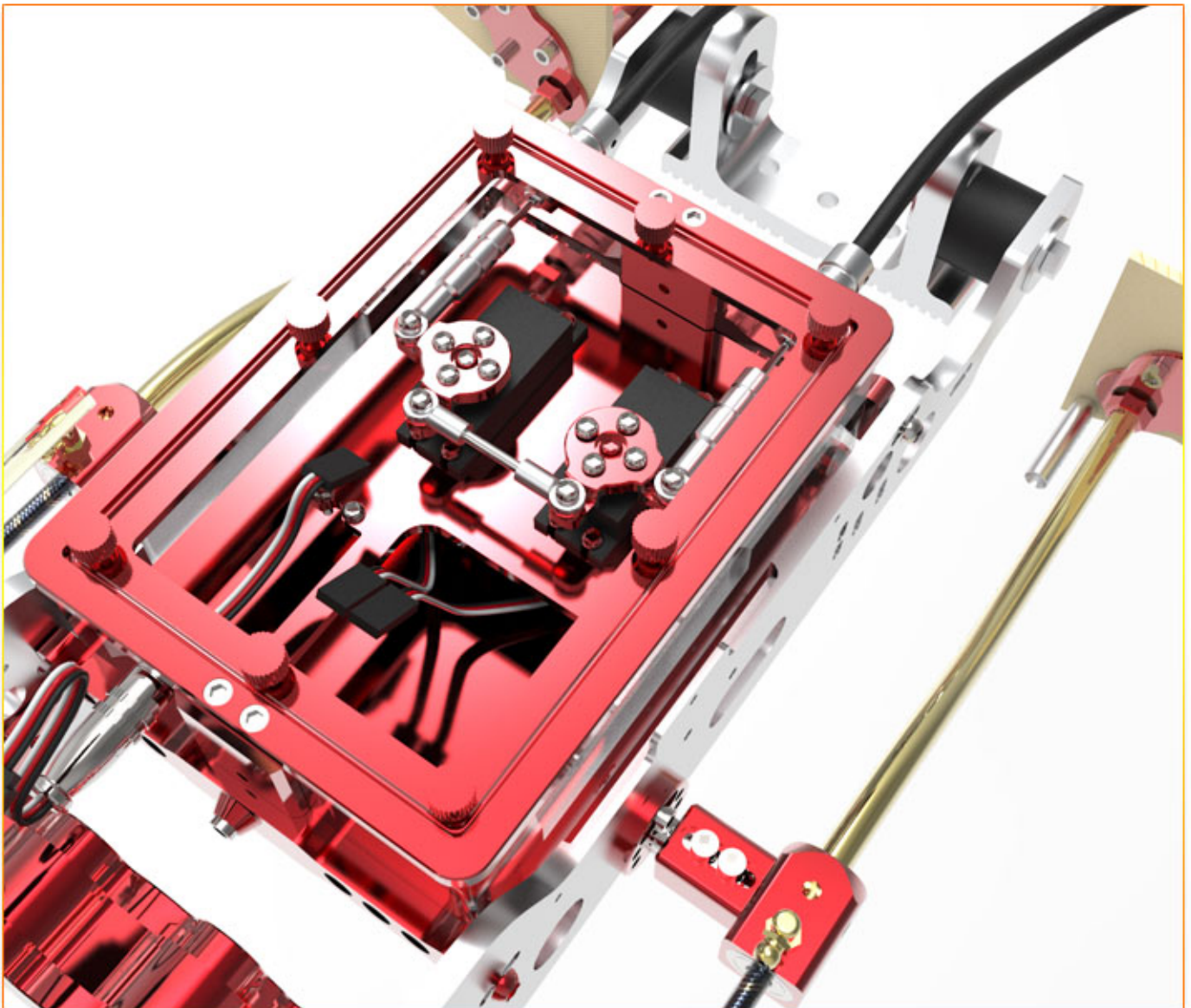
Smart Box-X

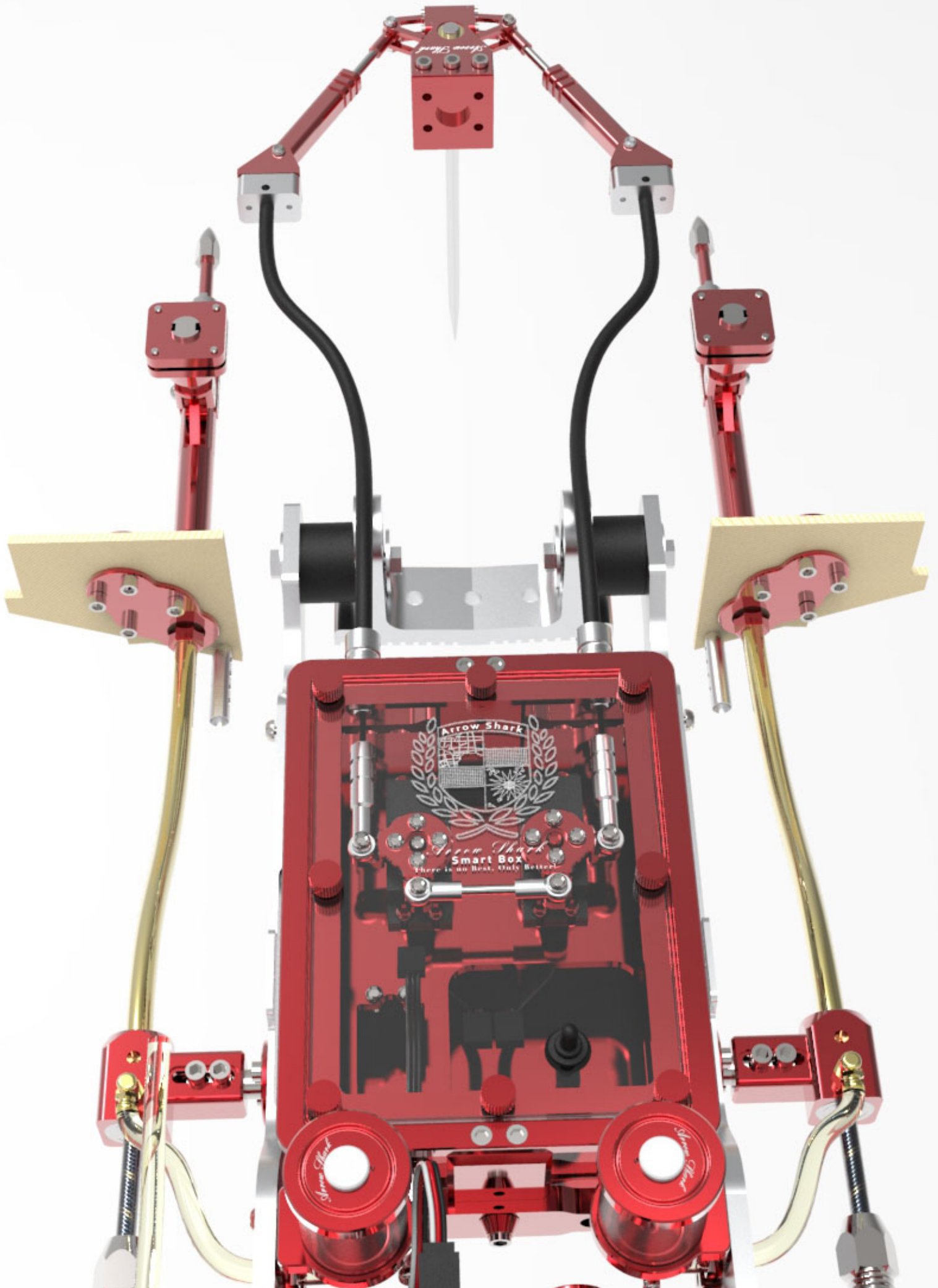


Cable Adaptor

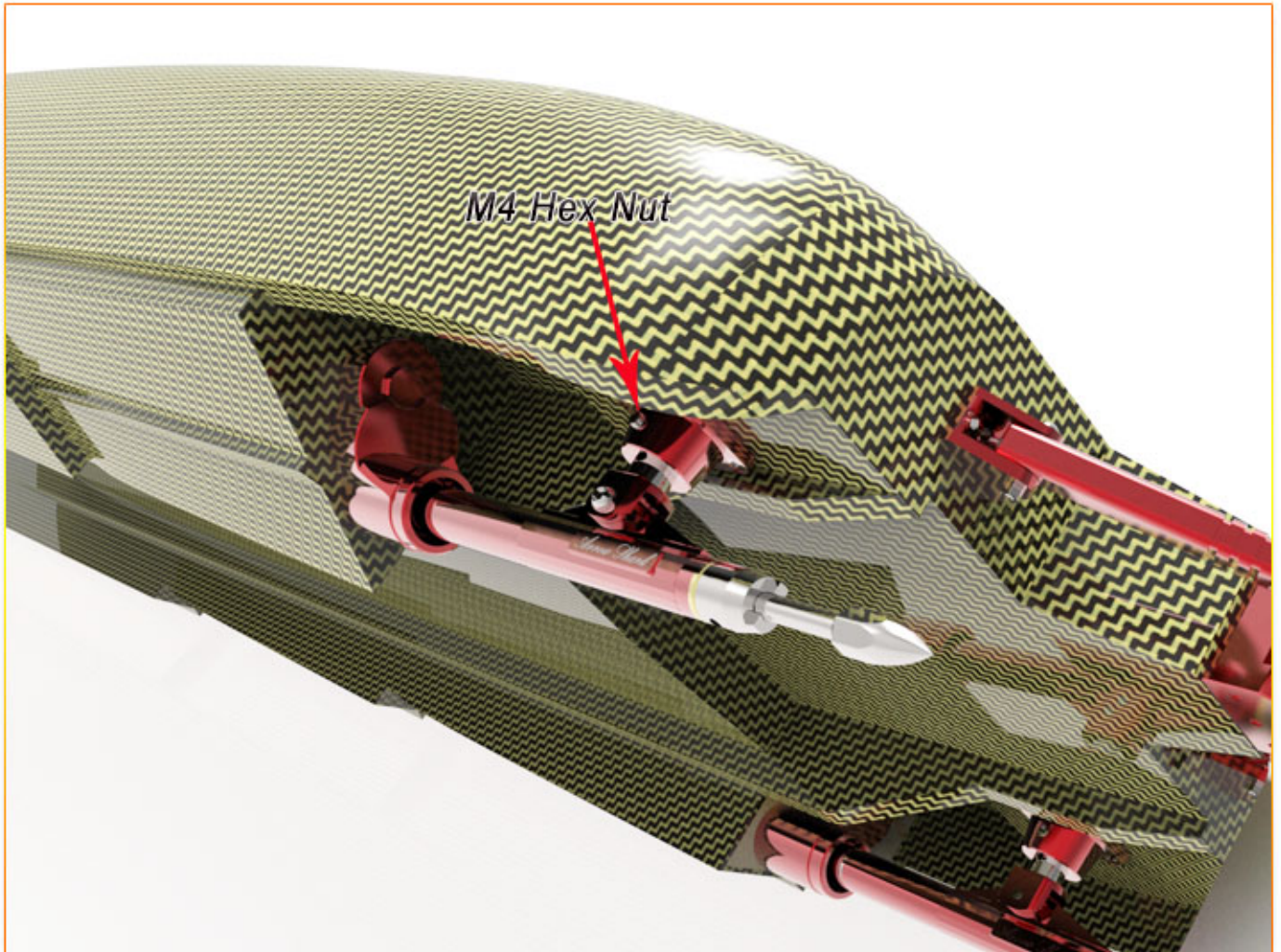


Demonstration of Installation





Prop Thrust Angle Adjusting Tips



Release the M4 hex nuts on both side of the top support bracket, you will be able to move the complete drive up and down for the thrust angle adjustment, 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 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: The amount of degrees on the thrust angle you adjust, must be identical on both drives.



Arrow Shark
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