

# **AP tech Outboard system kit for ASVs.**



These are the parts you will get in your outboard system kit.



Part A

Part B

Part C

2 Collets

Servo

Push Rod

Servo arm

Part C arm

And all the nuts and bolts to put everything together



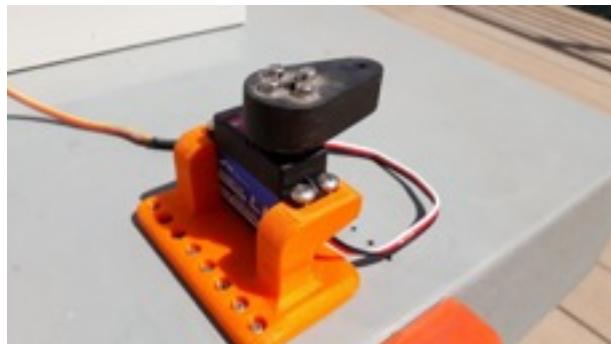
First mark the holes on your ASV making sure everything lines the right way.

The big holes where the carbon fibre will go through (in part B) need to be aligned with the centre of your ASV flat side up rounded side down. The alignment with your ASV for part A is 10mm between the holes for the servo self tapping screw. The 3x10mm screws for attaching the parts to your ASV are in bag A.

drill 1.5mm holes before, If the attachment points of your ASV are wood (as is this ASV in the example) dip the screw tips in wax to help with water proofing I even ran a bead of silicone round the parts and in the screw indents to help.



Attach the the servo using the 4, 4.2x10mm self tapping screws provided with the kit.



after centring the servo attach the servo arm to the servo using the 1, 3x6mm hex bolt.

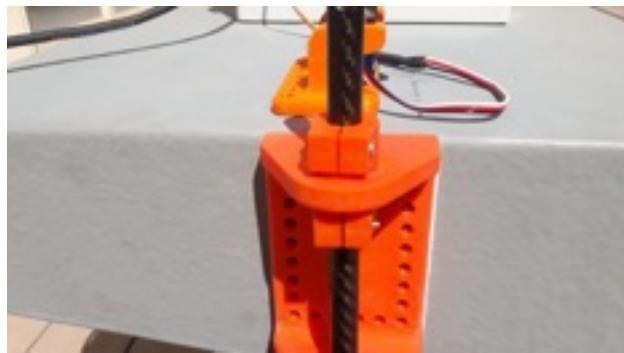


Attach part C to the Blue Robotics thruster with the 3x45mm hex bolts and washers provided with the kit, tighten in a North South East West fashion like with a car tire and remember to check the tightness of the bolt every now and then since 3D printed plastics tend to warp over time.

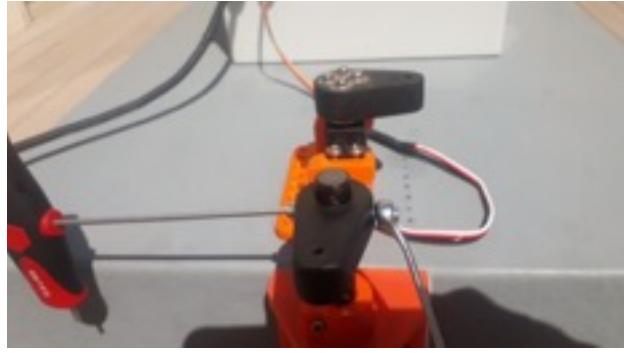




Pass part C through the lower hole of part B and a collet, Circular part of the collet facing up, continue pushing and passing the rod all the way to the upper hole and the other collet this time circular part facing down.

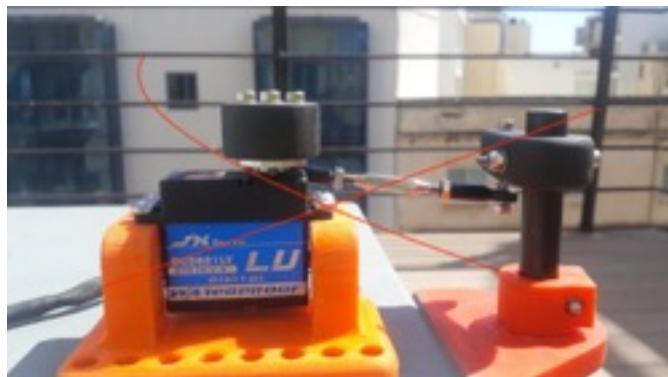


Pass the 3x35mm hex bolt through a washer and the hole on the side of the part C arm and part C itself,  
Close it all with a washer and 3mm nut provided with the kit.





Attach the push rod with the 3x30mm hex bolts and put a washer between the push rod and the 3D printed parts, Also the push rod is adjustable you can make it longer or shorter.



Make sure the push rod is horizontal by adjusting the height of the carbon fibre rod, The picture on the right is a bad push rod alignment.



And after you greased the moving parts with a silicone based grease or Vaseline. tighten the collets.