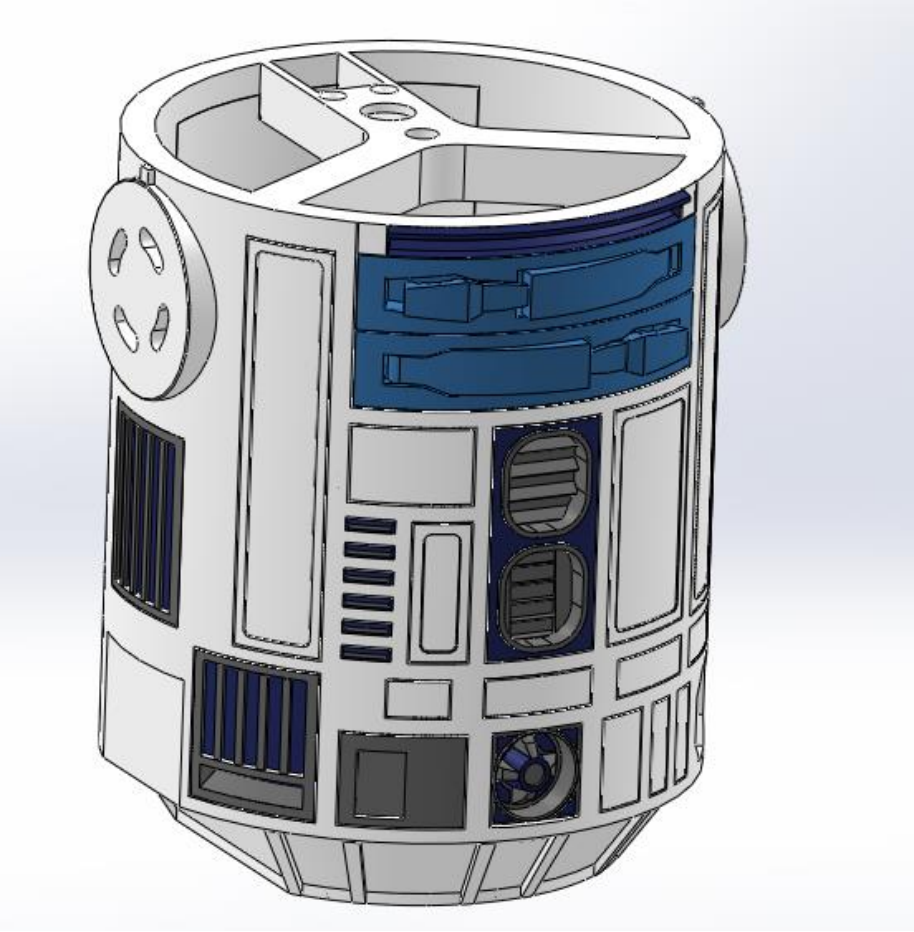
Mini R2-D2/R5-D4 Front Arm Guide by Matt Zwarts



This is the guide for printing and assembling a mini R2-D2 or R5-D4 I designed and the front arm section of the body, this allows for the simple addition of 2 small servos to activate the front arms on the body.

Review the part and recommended settings for printing to keep weight and strength optimized before printing and post some pics of you build in the Facebook Group.

https://www.facebook.com/groups/MrBaddeley/about/

Shout me a coffee of some filament costs if you like to keep adding to my designs and builds that I enjoy sharing

https://paypal.me/Matteous78?locale.x=en_AU

Happy Building,

Matthew Zwarts

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Printer Settings

All the prints I did where with PLA + material, use your own print temperatures and machine based settings.

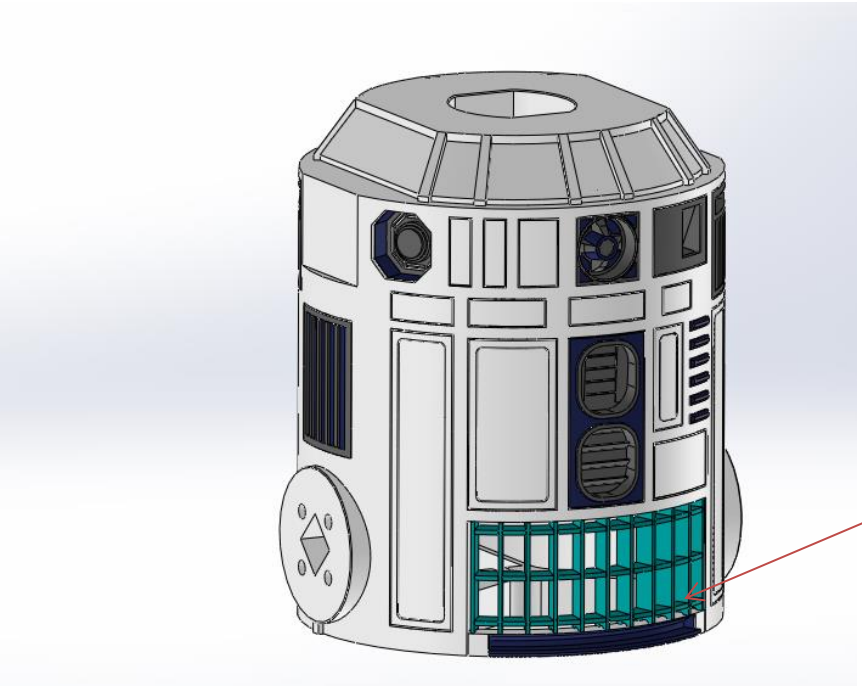
Part Name	Quantity	Supports	Overhang Value	Infill %	Notes
MZ_R2_D2_Body_Front Arm Cutout.STL	1	No		15	I printed at 0.3mm layer height and the front support piece broke out easily
R2_D2_Body_Front Arm Cutout Insert.STL	1	YES	60	15	Keep the support density down to 5-10% to be able to get the support material out easily
Utility Arm Pin.STL	2	No		30	
Utility Arm.STL	2	Yes	60	30-50	Print at 0.2mm layer height

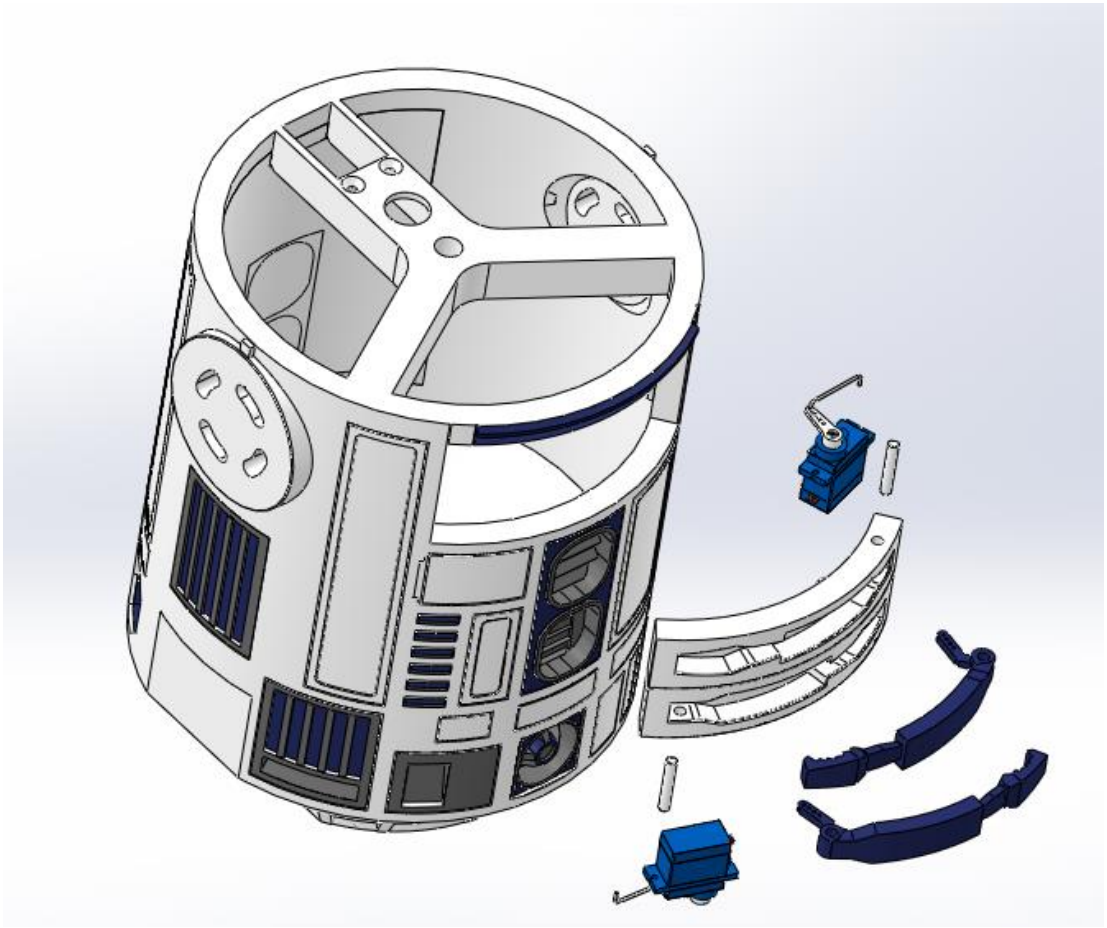
If you have already printed an existing R2 body this can be printed and swapped out for it, the leg connections and dome connections are all the same, only the body has been modified.

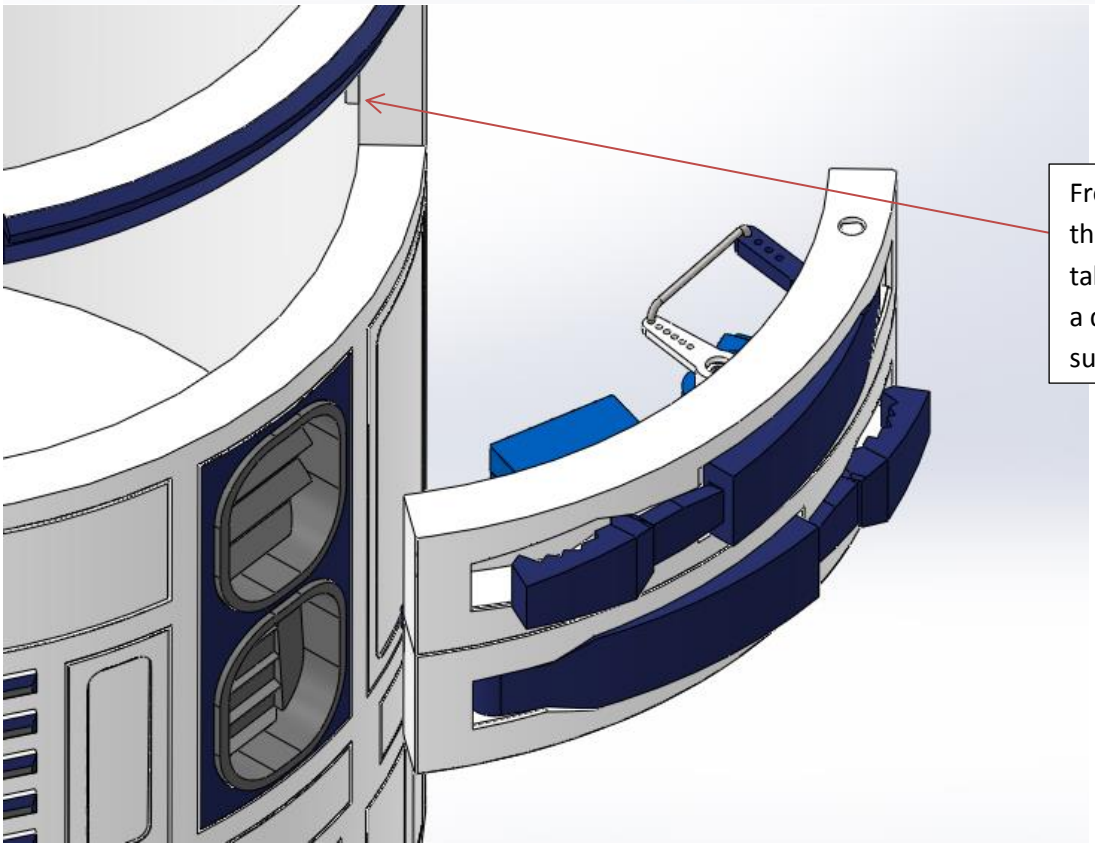
The servos used are just small 9 gram hobby servos with plastic or metal gears

Assembly

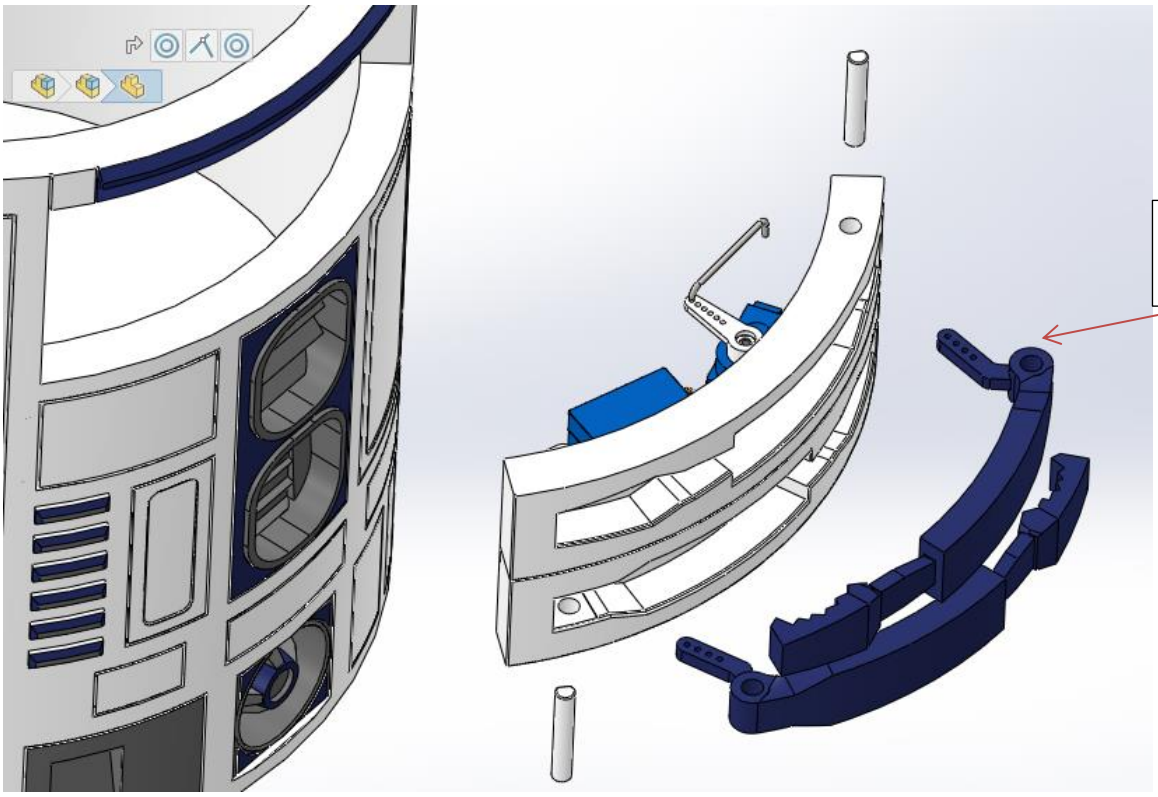
Assembly is hopefully fairly straight forward, refer to the images below to aid, as always test fit everything before applying glue. Check that the pin in the arm pivots is a loose fit and sand or drill clearance if required to make it a loose fit.

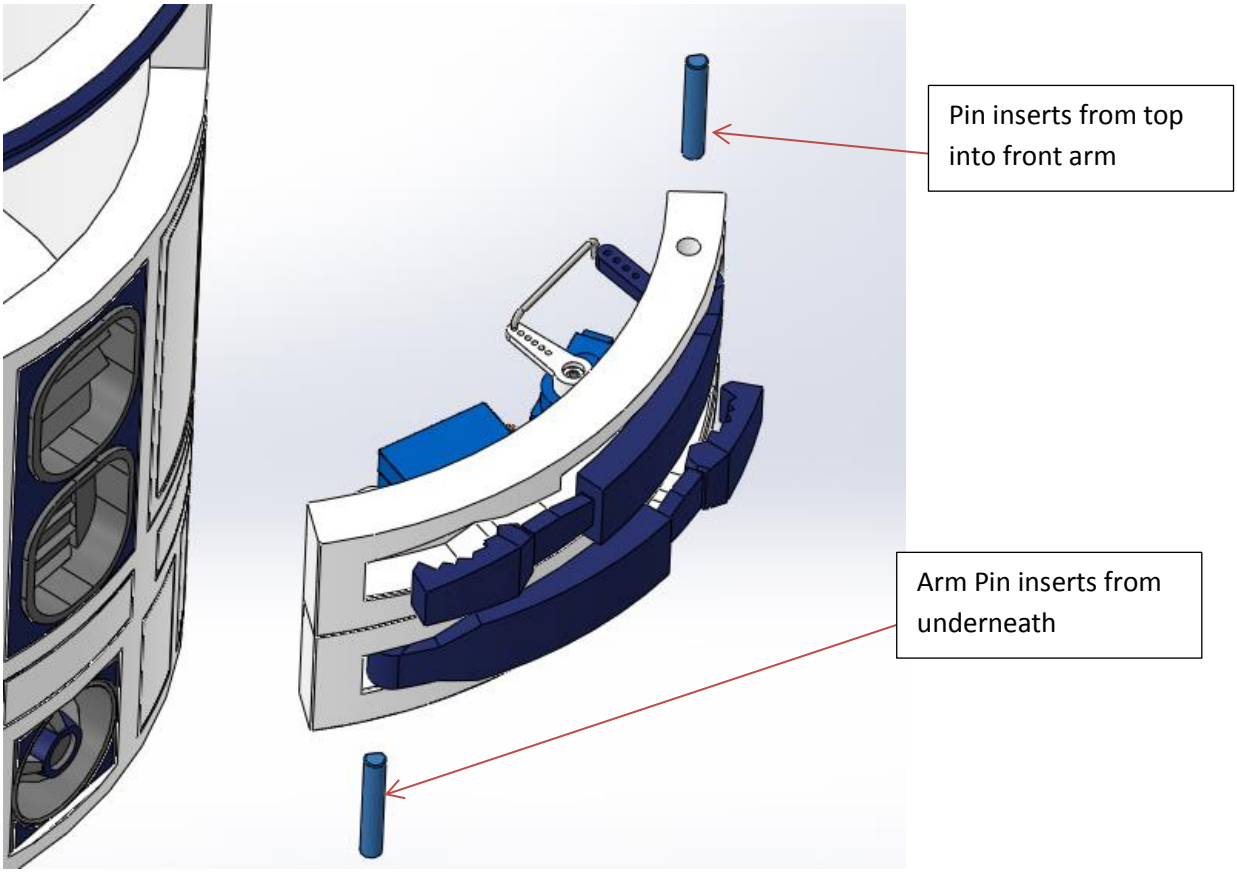


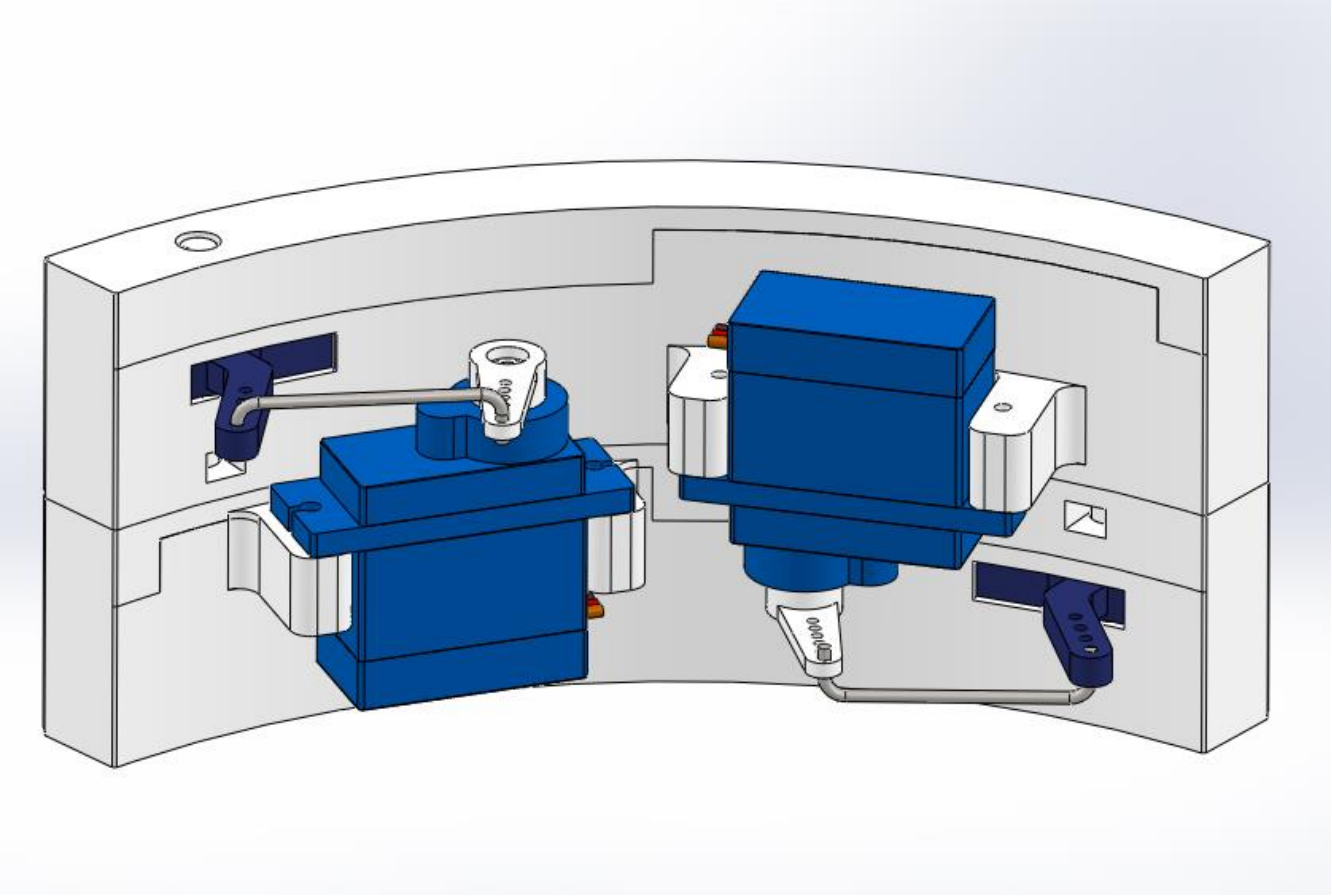


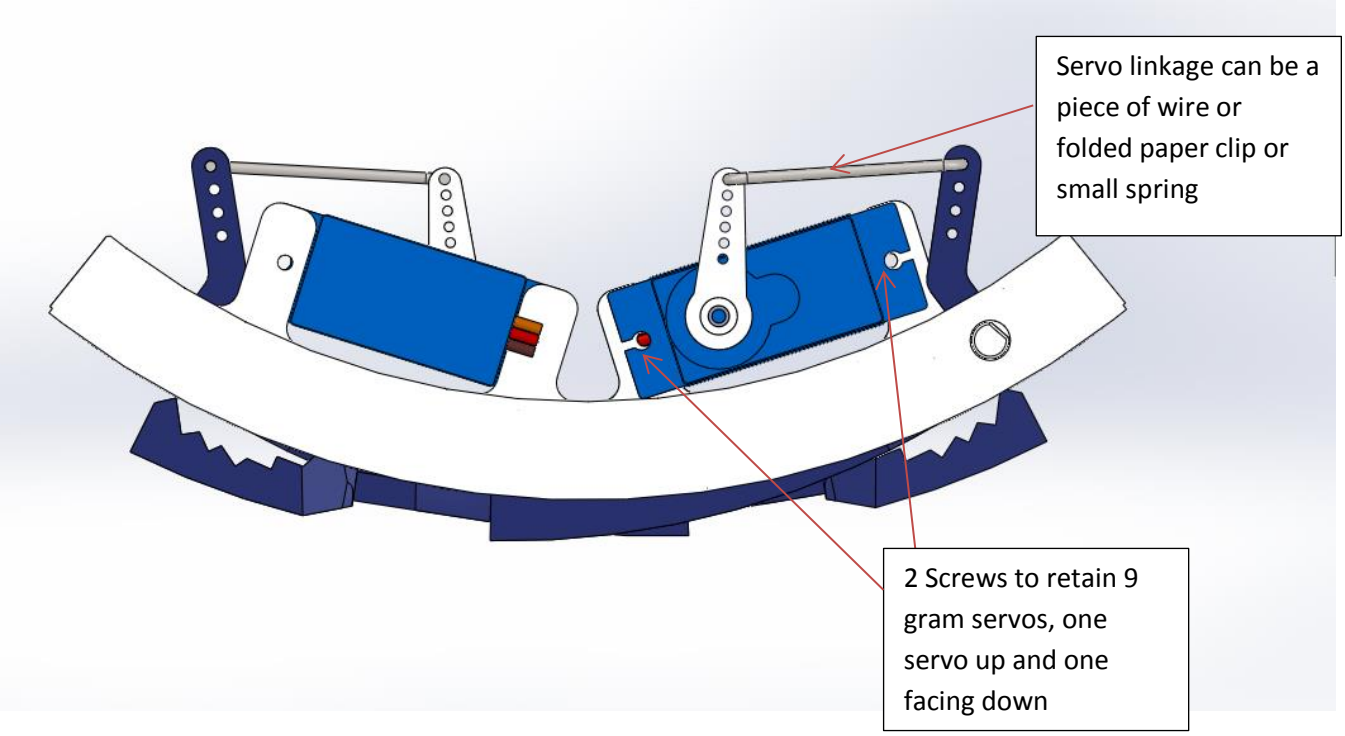


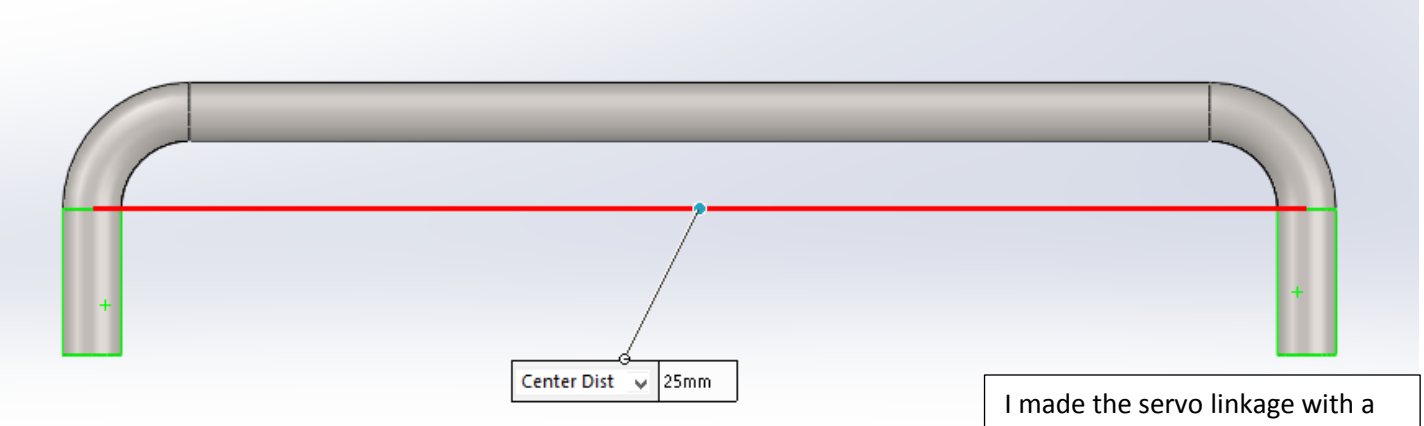
Front arm body pushes into the main body up to 2 location tabs, I didn't use any glue. But a drop of hot glue would suffice.


Arms slot into front arm insert


Pin inserts from top into front arm
Arm Pin inserts from underneath




Servo linkage can be a piece of wire or folded paper clip or small spring
2 Screws to retain 9 gram servos, one servo up and one facing down



I made the servo linkage with a paperclip and the distance between to 2 pivots is **25mm**

That's it… hopefully you get some enjoyment from the mod and Happy building!