

# Dingo Servo Mounts

Mini Duo Assembly Instructions. (For HD1370A Servos only)

Please read these instructions right through before commencing.

Take a little care with the assembly and you will have a really robust servo mount. Remember that you can only bend the aluminium once, so make sure you have the correct orientation before bending. (I cannot stress this enough! Check and double check before you bend.) Bending can be done by hand on the edge of a work bench or on a wooden block.

Before you start, make sure that all the parts are in the kit (see diagram on the back page.)

Check the metal parts for excess flash from the lasercutting and remove if required with a small file or modelling knife. A small amount of burr on the edges will not affect operation, however check that the sliders fit easily in both top and bottom slots as tolerances here are quite tight and they need to move freely for reliable operation.

Any pips can be easily filed away.

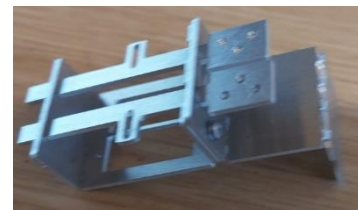
This unit comes pre-folded so no folding required.

Fit the 2 sliders into the frame making sure that the slots for the servo drive are on the outsides.

The rectangular blocks are on the side where the slots are cut through.



Carefully fit the "Z" piece to the "U" shaped frame - You will need to juggle the sliders a bit at this point to get the bits together.



Once this is all lined up fit 2 of the M2x3mm screws through from the top to hold the whole mount together and the sliders in place. Make sure the sliders are still moving freely.

Don't worry if the sliders come out of the bottom slots as they can be slotted in again quite easily.

Now prepare the servo horns

Fit the M1.6 x 8mm screw through from the back of the 3D printed replacement horn



It should self-start quite easily through the hole that is already in the servo horn

Make sure that it is all the way in and should stand at right angles to the horn (you will need 2 of these)

This mount is designed to fit a HD Power HD 1370A Servo motor. Other small servos may fit but I have not tried any others.

*Note: The 3D printed replacement horn is supplied because the standard horns are very flimsy and may distort when adding screws.*

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Now centre the servos with a servo tester and fit the horn as shown to the servo with the tiny screw



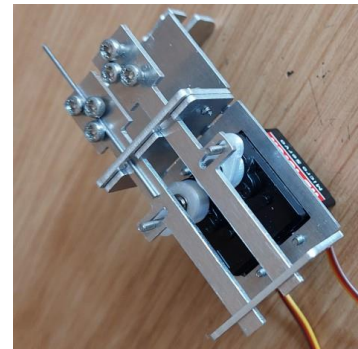
in the servo motor pack. (Be careful with these screws as they have a mind of their own and are hard to find replacements for)  
 Note you will need one LH and 1 RH so that they line up

Now mount the servo motors from the back of the frame using the M1.6 x 4mm screws supplied. Make sure that the motor is oriented as per the picture. Also make sure that the horn screw engages with the slot in the slider.



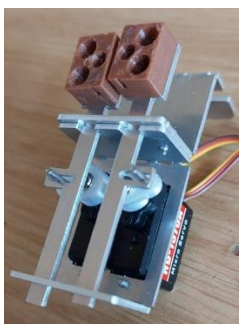
*This unit is quite delicate, so handle carefully and it should give years of satisfactory service.*

Connect up the servo and check that everything works smoothly with no binding etc.



Finally fit the 3 off M2 x 3mm screws on the slider for holding down the actuator wire from your signal or alternatively you may want to use the magnetic clip designed for the Omni mount as this will give more protection for your signal.

Now fit the unit under the baseboard using the 2 flange screws. Attach your signal and adjust as required. Make the final adjustments to the actuator wire and set your control software and you are ready to roll.



If you have bought the "With Magnets" pack you will also have 2 Brown plastic components and 2 sets of magnets. Assembly video is here for this magnetic clip. [https://youtu.be/g\\_jzVGfAouM](https://youtu.be/g_jzVGfAouM)

Note: These Magnet holders are slightly smaller than the standard Orange ones. Soon this will be the size of all Magnet clips.

## Setting up a magnet clip for Omni Mount, Signal Mount or Mini Signals.

Put magnets together



Insert from Rear



Remove small magnet



Insert operating wire



Push down Magnet



Drop in Small magnet

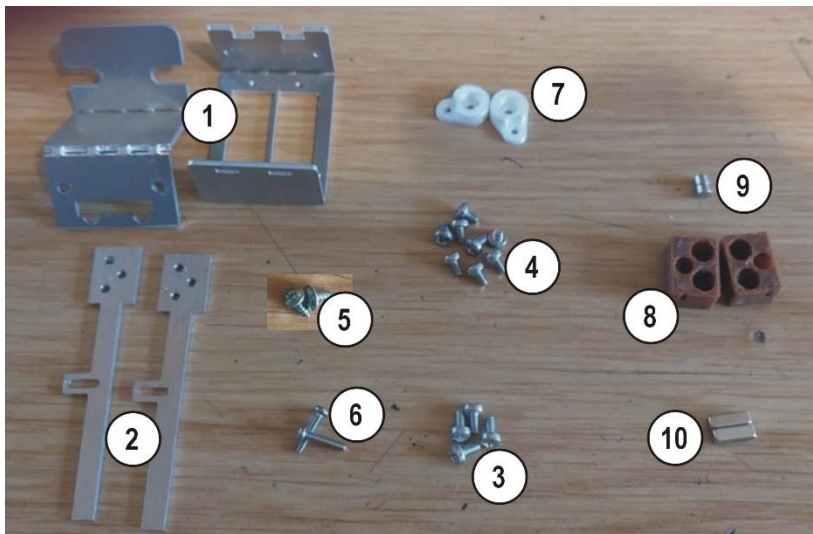


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No	Description	Qty
1	Main Body in 2 parts	1
2	Slider	2
3	M1.6 x 4mm Pozi Pan Head Screws	4
4	M2 x 3 mm Pozi Pan Head Screws	8
5	3mm x 6mm long Flange fixing Screws.	2
6	M1.6 x8 mm Pozi Pan Head Screw	2
7	3D Printed Drive dog / replaces horn on Servo	2
* 8	Magnet Holder	2
* 9	3mmx 2mm Magnets	2
*10	7.5 x 2.5 x 2.5mm Magnets	2

Items marked with ' \* ' are for magnet attachment only



Please forward any comments or issues to me.

I hope you have many trouble free hours operating this unit.

I welcome feedback in order to improve the units for the future.

David Ingoldby

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## Issues encountered using these mounts in DCC

My grateful thanks to Chris Majer for finding a solution to an issue while using these mounts in DCC. The pictures here are his as well.

Chris writes

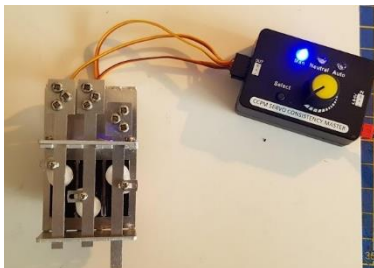
*Dave*

*I have found a problem with the Mini Duo that caused me a bit of head scratching.*

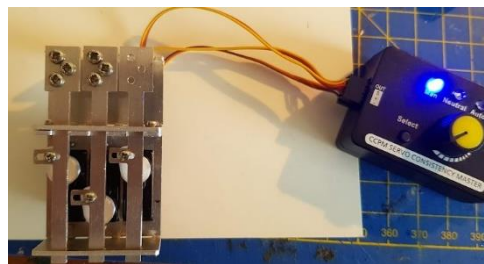
*Having produced the units as per the video and inserted one under a two Arm Signal, I addressed the Servo Driver via DCC to find when both signals should be 'ON' they were in fact one ON and one OFF. I tracked this down to the design of the Duo which inverts the direction of throw. This also occurs with one of the Mini Trip servos i.e. 2 drivers agree and one does the opposite.*

*To rectify this with the Mini Trip is easy – just reverse the drive bar for position 3 – see before and after photos.*

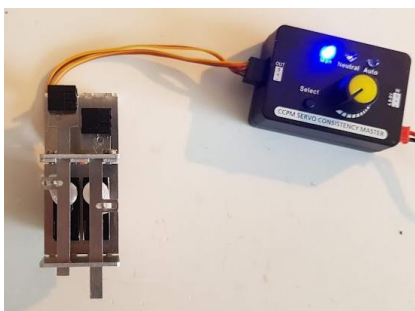
*To rectify the Mini Duo is more of a problem – I had to use No. 2 drive bar from a Mini Trip and use it in the Duo – see before and after photos.*



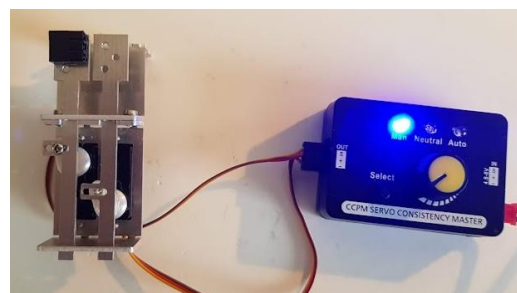
**MiniTrip Before**



**MiniTrip After**



**MiniDuo Before**



**MiniDuo After**

**Note: If you are using DCC and you require the different slider for the MiniDuo, please advise with order as I can then ship the respective part.**