

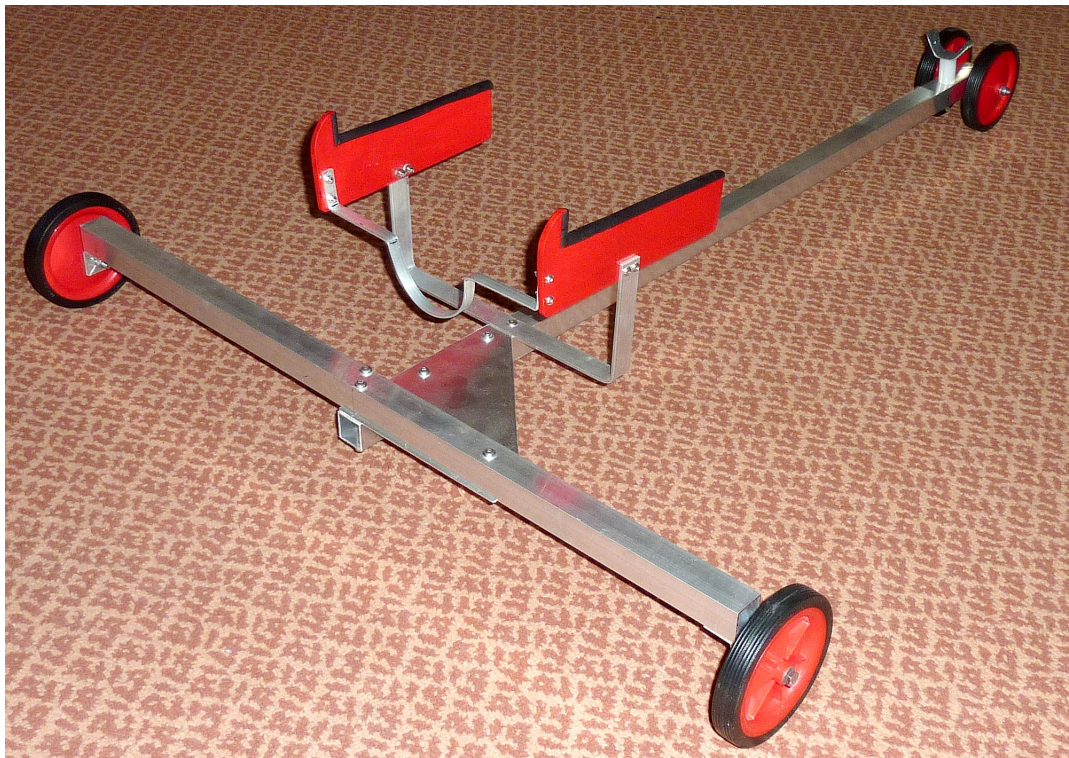
Glider launch dolly

In the past I launched my soarers by hand, either downwards off a slope or on a bungee. My move to electric gliders meant a new technique was required. I am happy enough to chuck a light foamie under power but the first flight of my renovated Cirrus, now called Sirius, was a bit daunting. Knowing that I will be flying ever larger gliders in future (going forward- yuk!) I decided to build a dolly.

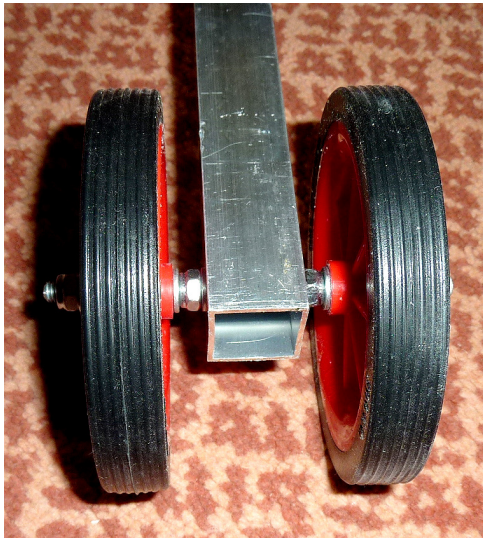
Aluminium was the obvious choice, being light and easy to work. The main chassis is a T-shape of 25 mm square aluminium tube braced with a 1.5 mm thick triangular aluminium plate. Overall chassis dimension are 1000 mm long and 700 mm wide. All chassis screws are M5 stainless button socket head of various lengths with stainless washers and locking nuts. Even though I positioned the screw holes near the sides of the tubes I was careful not to tighten too much to avoid deforming the tubes.

The 102 mm diameter front wheels are mounted with M6 screws and locknuts onto 2 mm thick angle brackets. I hope these are strong enough to avoid bending. If not I'll replace them with off-cuts from the 25 mm tube. The rear wheels are fitted to a length of M6 threaded rod, again using locknuts. The drag from the rear wheels should keep the dolly running straight.

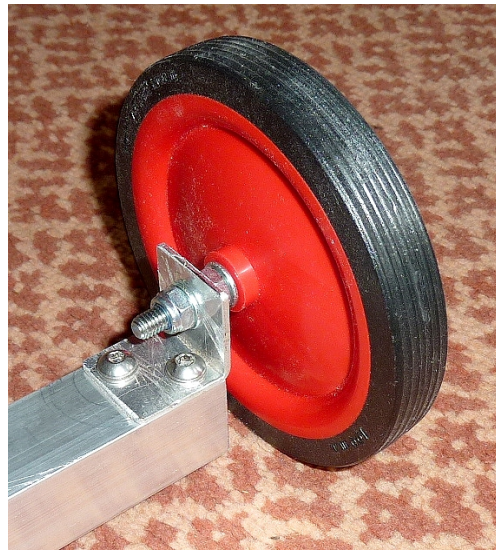
I debated how to build the supports for the glider. In the end I decided that two 6 mm ply supports for the whole chord of the wings would be best, sloped to the 3° wing incidence. The front allows the wings to push the dolly but the shape is such that the wings can rise vertically. A 2 x 20 mm aluminium strip bracket holds the supports and is fixed onto the chassis using an M6 screw. This means that I can easily fit a different support for a different glider. I will probably use a wingnut if I decide to have changeable ones. The thin curved aluminium piece keeps the fuselage centralised.



Rear wheels



Front wheel



Suppliers (mostly on eBay)

Wheels	alwaysshobbies (£9.95 for four 102 mm wheels)
Aluminium tube	mwprofiles (£6.30 for two 25 x 25 x 1000 mm)
Aluminium plate	alum_droitwich (£7.23 for 1.5 x 250 x 500 mm)
Aluminium strip	engineering_suppliers (£6.20 for 2 x 20 x 600 mm)
Stainless M5 screws	kayfast1 (all around £1 to £2 for 10)
M6 threaded rod	selections-web (about £3 for 1m)
6mm ply	SLEC (of course)

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