

Multi-purpose observing chair

I live in the U.K. in Malvern – a picturesque town nestling around the Malvern Hills with scenic views over the surrounding countryside. The Hills run north/south for about 8 miles and the highest point is at 1,394 ft above sea level. Sadly, the town is severely light polluted. Even on good nights, sky watching from home is not impossible but conditions are considerably less than ideal. From my front door, I can see sixteen street lights. There are two lights within fifty yards of either side of my back yard. My options are to travel five miles to a darker site on the plain 300 feet below the Hills, or two miles to a car park at the start of a macadamised path leading to the Worcestershire Beacon.

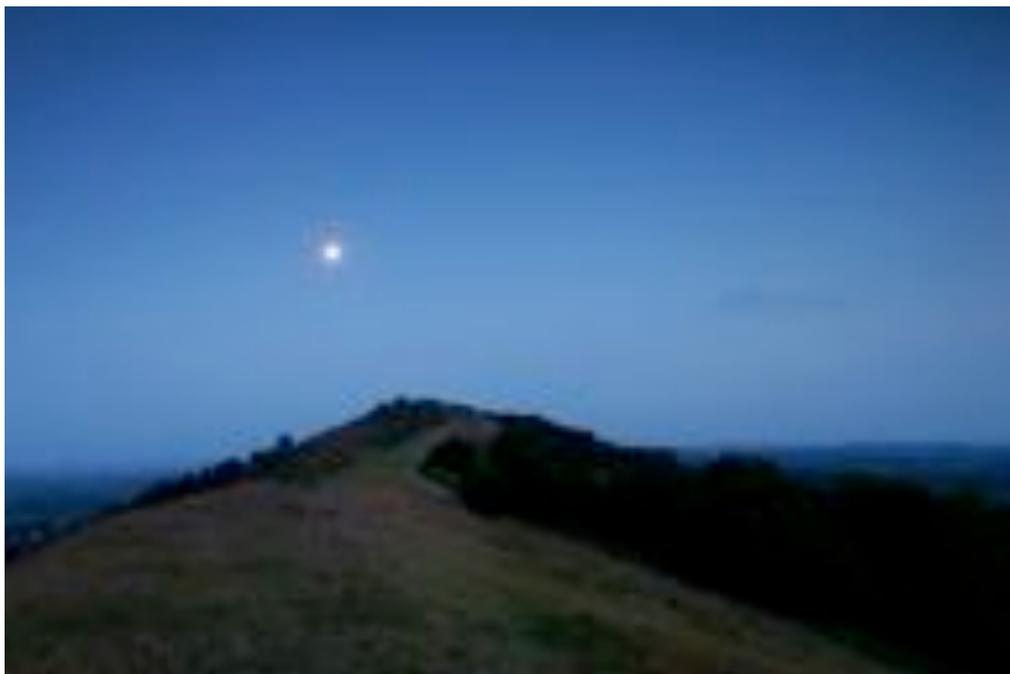


Photo 1 View of Malvern Hills at dusk showing path running along ridge from car park towards the summit.

The nearest suitable viewing site is approximately 500 yards from the car park. Getting my ETX 125PE in its case, the tripod, a power pack and a backpack with assorted gear from the car park to a suitable viewing point, on my own, in the dark, posed an obvious problem. My solution was to build a multi-purpose observing chair-cum- transporter which I push up the ‘pedestrians only’ path.

Clearly not all readers of your brilliant website will be faced with such a challenge, but the design and construction from largely re-cycled materials may be of interest to amateur astronomers with DIY leanings. The minimal skills required are an ability to measure accurately, drill holes and use a hacksaw. I didn’t make detailed plans – but the following photos /comments may be helpful to anyone wanting to make a low cost chair with or without the attached components.

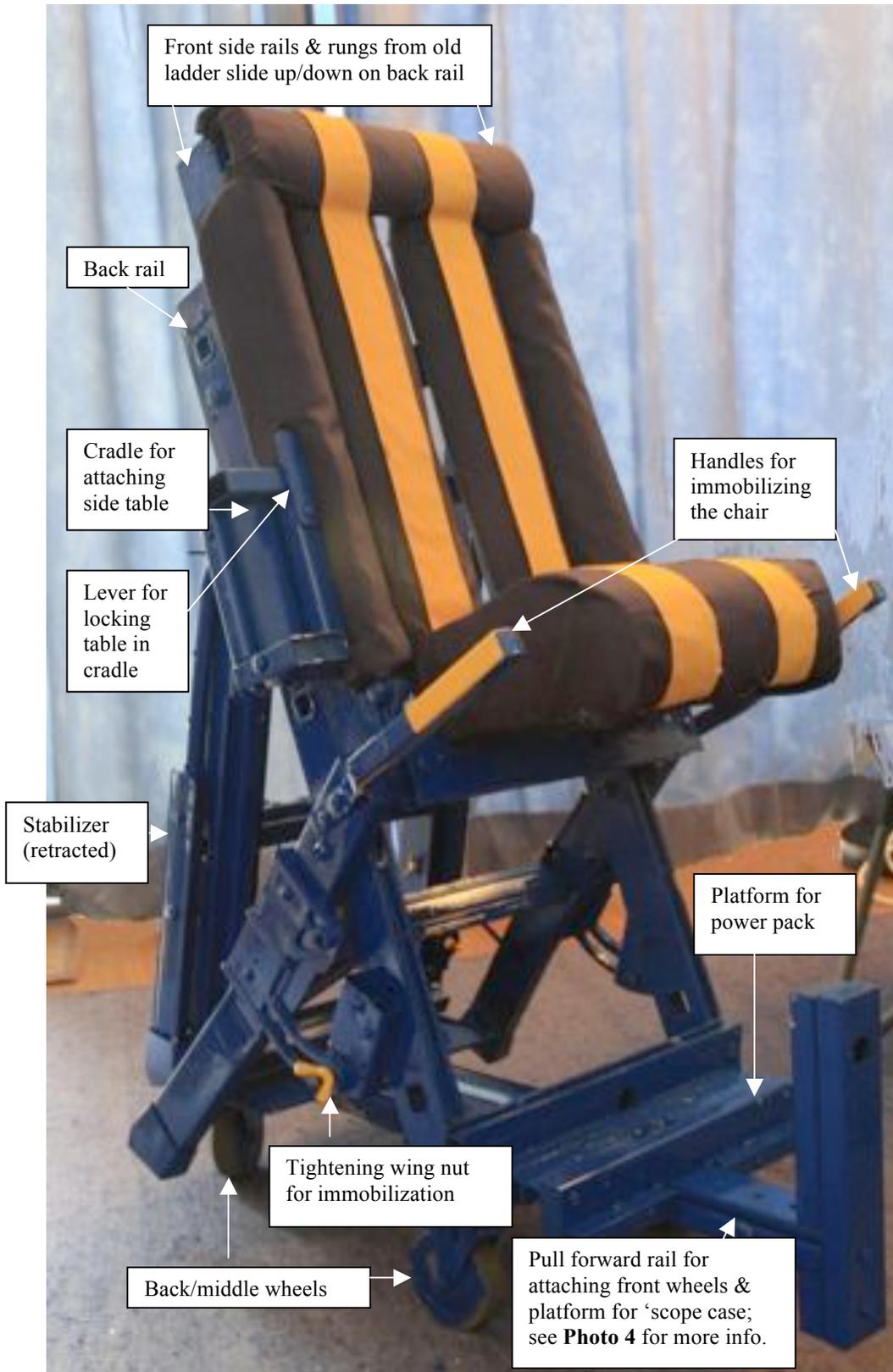


Photo 2 The 'basic' chair was made from a re-cycled aluminium loft ladder which had a sliding mechanism that permitted the 'front' set of rungs and side rails to slide

up and down on a 'back' set of rungs and side rails. I converted the back rails into a triangular arrangement, attached a chair seat to the front rails and mounted it all on four wheels with an immobilizing foot on each side.



Photo 3 showing basic chair with stabilizer extended when seat is raised to maximum height. The seat and back rest consist of side rails from the ladder, covered with foam rubber and material from an old deck chair

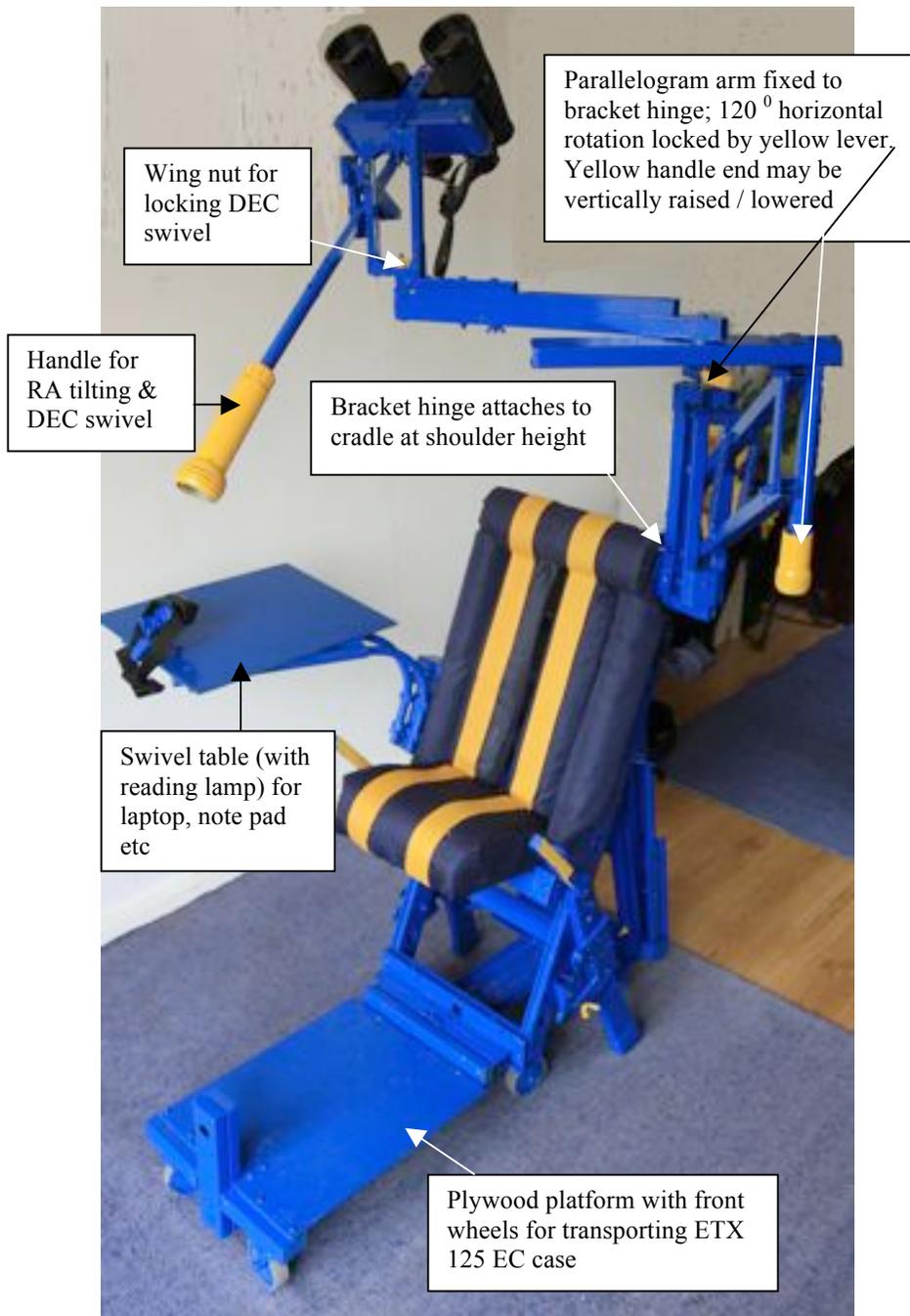


Photo 4 The basic chair with added on components – a binocular arm, side table and platform/front wheels. Disassembled, all this gear fits onto the back seat/floor of a very small car. The scope case, tripod, power pack and back pack go in the boot (trunk). It takes about ten minutes to unload and convert the basic chair to ‘transportation mode’ – see **Photo 8**

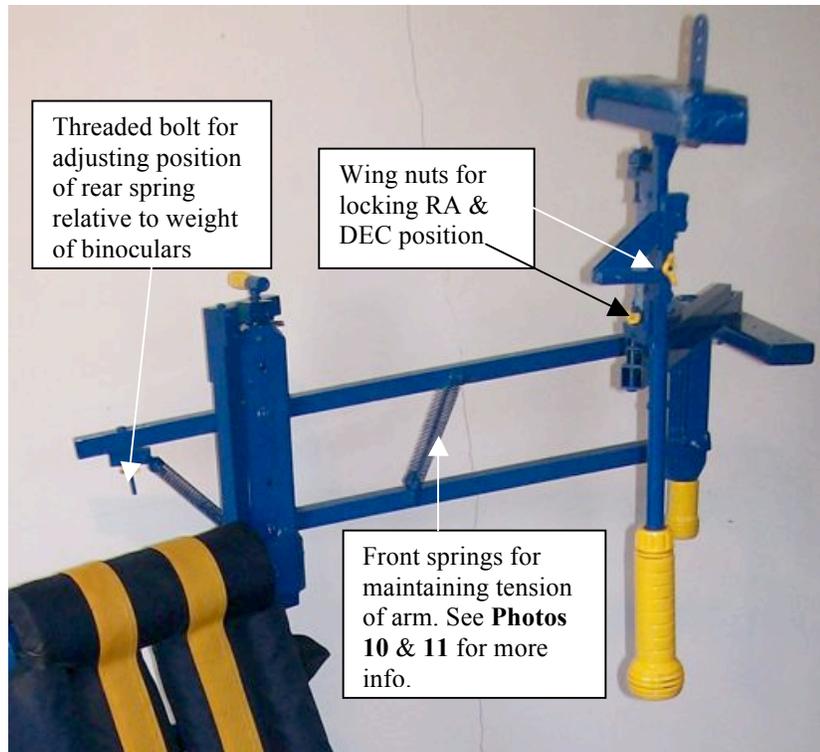


Photo 5 Side view of binocular arm

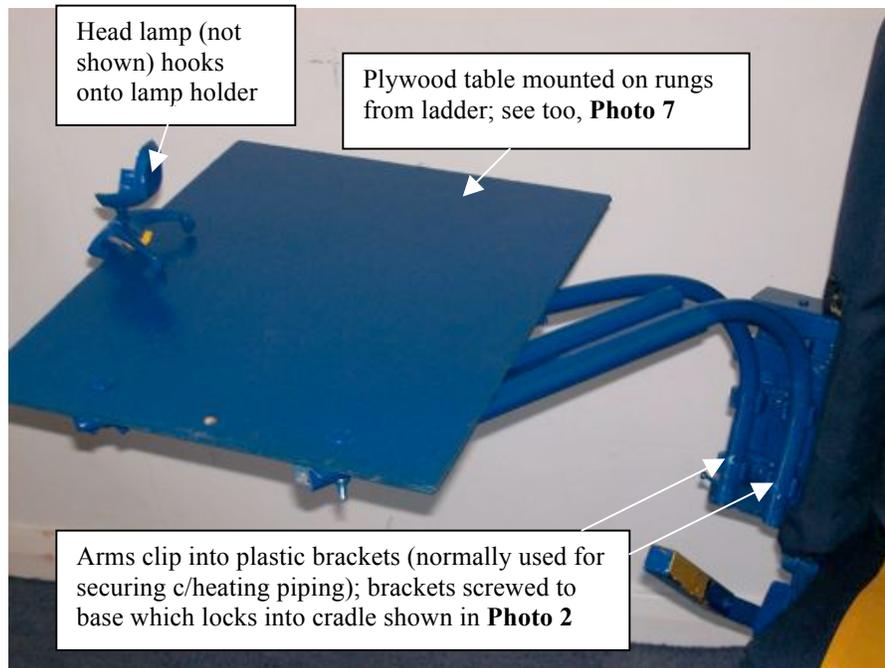
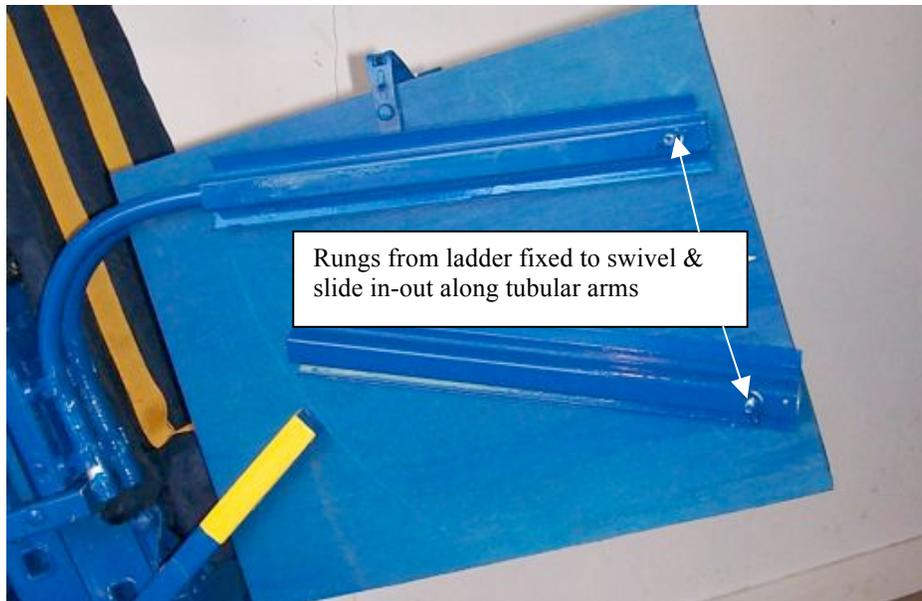
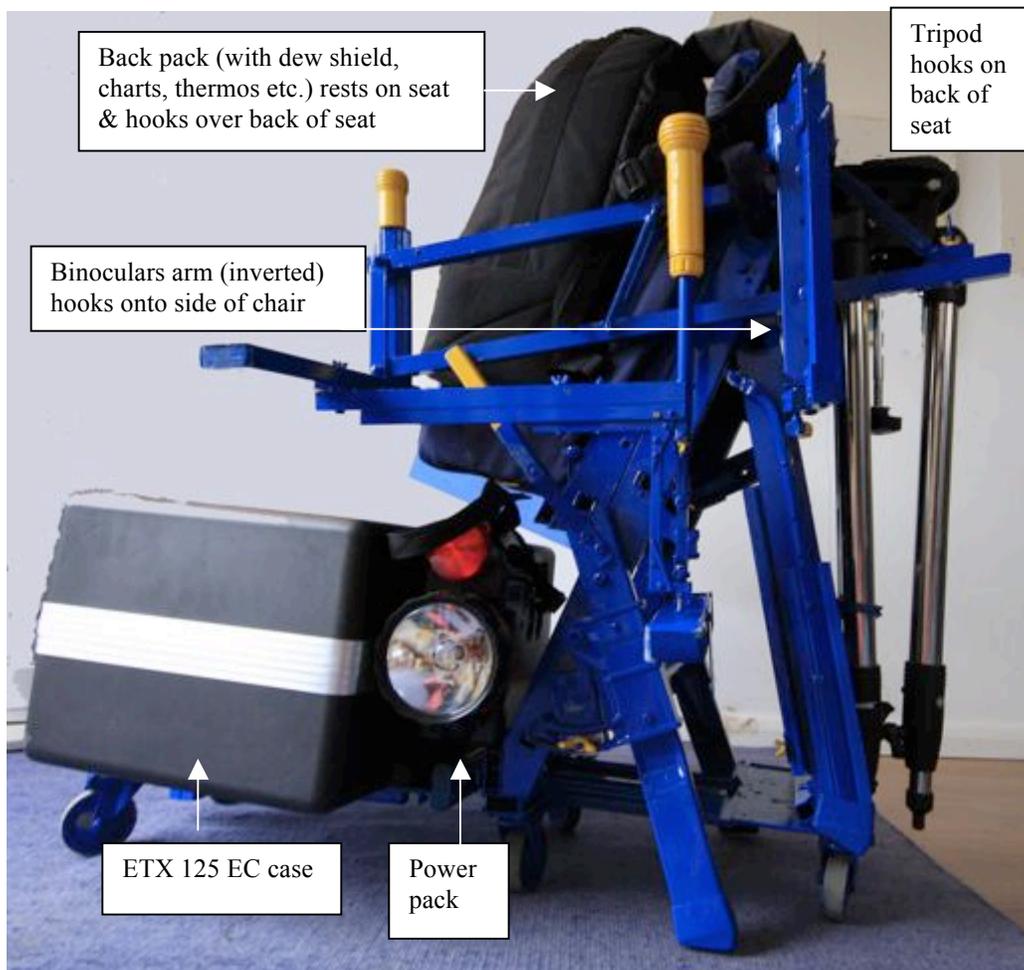


Photo 6 The table slides in-out on two tubular arms; it may also be swiveled to 'portrait' or 'landscape' orientation. Arms rotate horizontally & may be positioned at variable angle(s) relative to the chair seat, The lamp holder is a cut down shell from a webcam (Vista incompatible!); it swivels left-right, up-down & may be positioned on the 'long' or 'short' side of the table.



Rungs from ladder fixed to swivel & slide in-out along tubular arms

Photo 7 Underside view of table folded down in 'transportation mode'



Back pack (with dew shield, charts, thermos etc.) rests on seat & hooks over back of seat

Tripod hooks on back of seat

Binoculars arm (inverted) hooks onto side of chair

ETX 125 EC case

Power pack

Photo 8 'Transportation mode' for getting everything from car park to viewing site



Photo 9 shows rear view of chair in 'transportation mode'. On a sloping macadamized path from car park to viewing site, it is easily moved/steered by pushing on the top corners of the seat back rest. Even with six small 3 inch dia. wheels it is quite stable. I may replace these with larger wheels for negotiating gravel paths.



Photo 10 Scanning the sky with binoculars is a two handed operation using left hand to sweep/raise parallelogram arm and then right hand to lock arm in general direction of target. You then guide secondary arm and binoculars to eyes; thereafter use right handle to move eyepiece in sync. with upper

body movements. If need be, use lower body contortions to move entire chair away from scope/tripod and twirl around at will. Lock/unlock immobilizing foot as/when required. May sound complicated, but is quite intuitive!



Photo 11 – adjusting focus. Thereafter use both hands on left yellow handle to swivel/tilt binoculars before locking wing nuts (shown in **Photo 5**) for extended gazing.