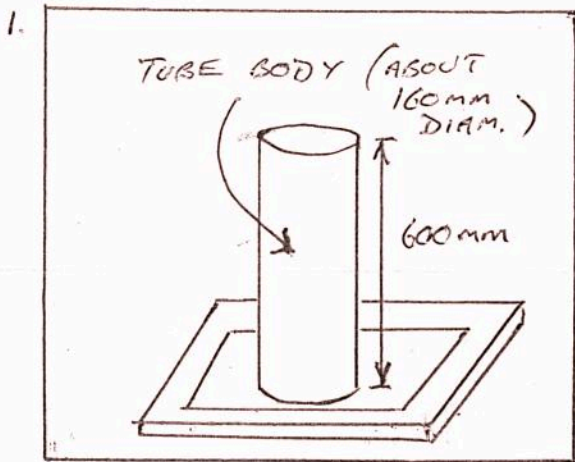
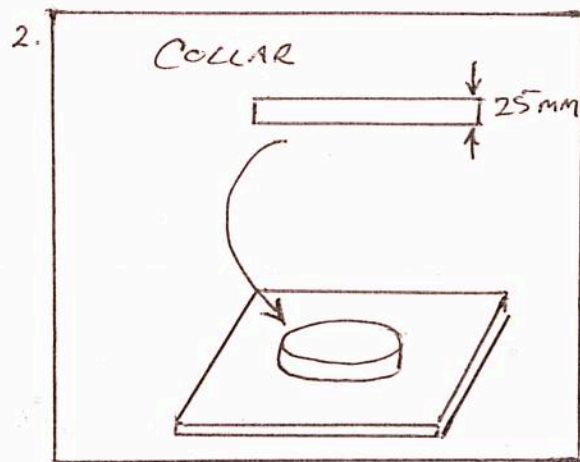


# Underwater Viewer Project

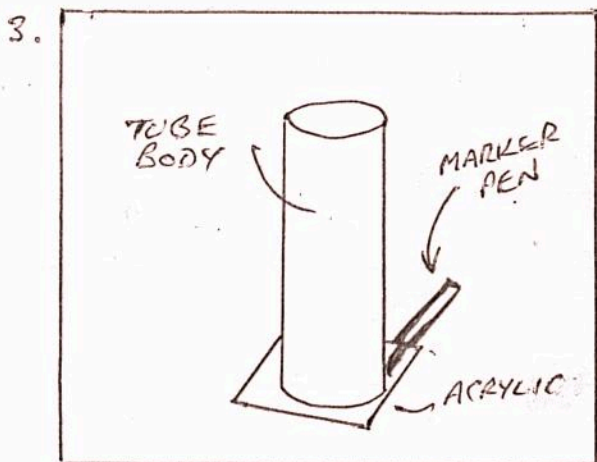
Use pipe diameter to suit your situation eg plumbing, electrical, whichever is cheapest – largest diameter you can get.



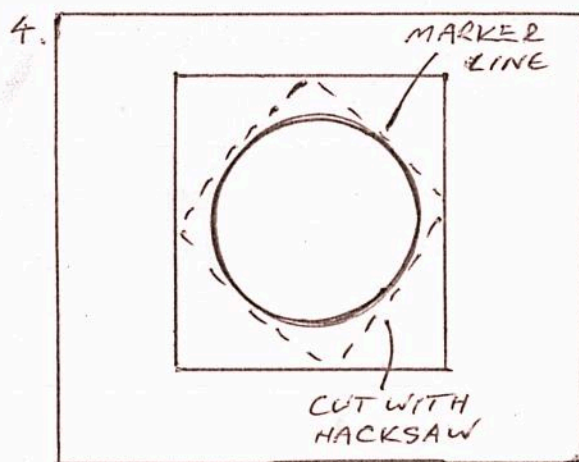
Cut pipe to 600mm length and sand both ends flat on a prepared sanding board\*



Cut a collar of pipe 25mm thick. The collar internal diameter must be the same or slightly larger than the tube body outside diameter



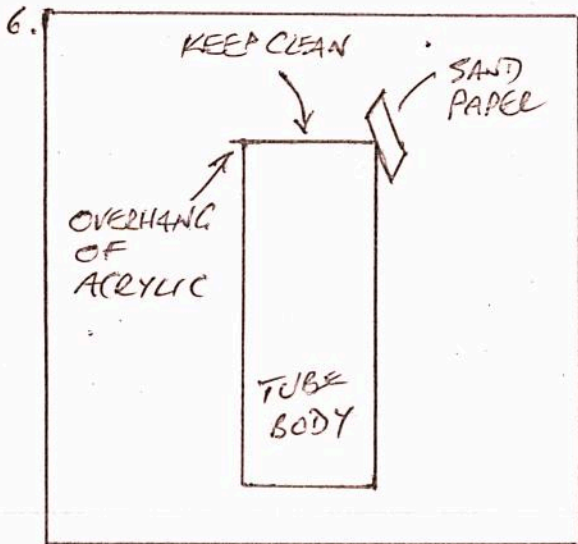
Place tube body over a piece of clear acrylic (or similar) and trace around to give a complete circle in black marker pen ink.



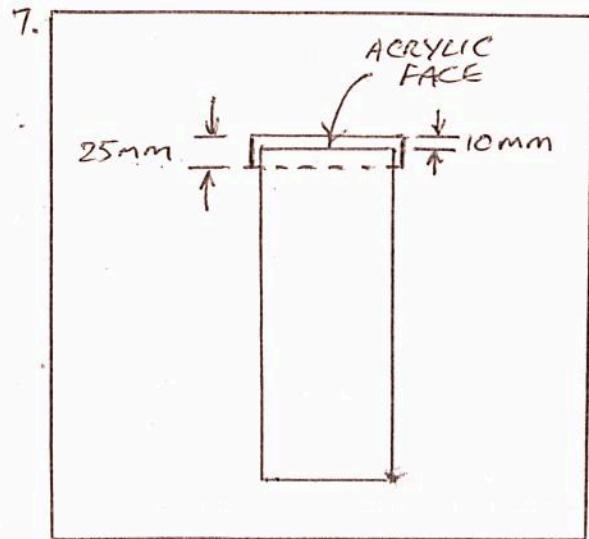
Trim edges of acrylic off with a hacksaw (carefully, as the acrylic will crack easily if you are too vigorous) then sand down to a point half way through the ink of the circle. The acrylic should fit the tube body with slight overhang.



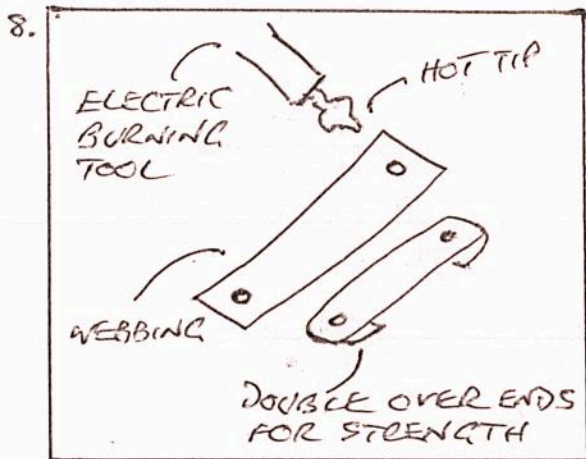
\* Glue coarse sand paper onto a large flat piece of plywood forming a square of sandpaper.



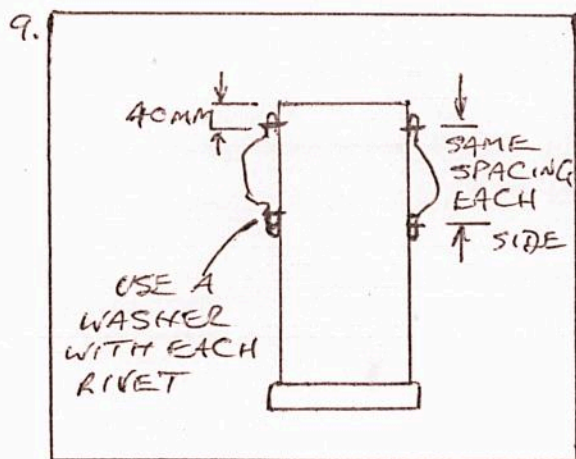
Sand off overhand while holding acrylic onto tube end – or glue acrylic on then sand off overhand (careful this may unseat glued acrylic)  
 Acrylic may be glued or siliconed into position however many sealing products do not stick to acrylic well – test this first.



Glue acrylic on and let dry. Then glue on collar so that the collar extends 1cm out past the acrylic face lie horizontal for drying so that the collar does not move – tape may be useful here.



Cut webbing to about 300mm x 2 for handles. Use a heat tip tool as this webbing frays. Also burn two holes in each piece.



\* Drill 4 holes so that the webbing handle is loose enough to fit your hand through.

\* Drill hole must suit the rivets you are going to use.

USE A SUITABLE WASHER FOR EACH RIVET

**Rivet on handles and test in a bucket of water for leaks. If leaks appear, put a thin bead of silicone (or the glue you used) around the acrylic face (external) and the join between the collar and the body tube.**

