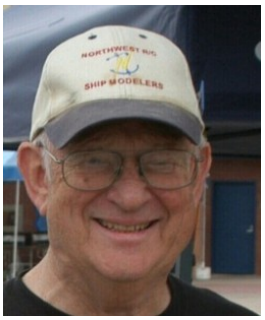
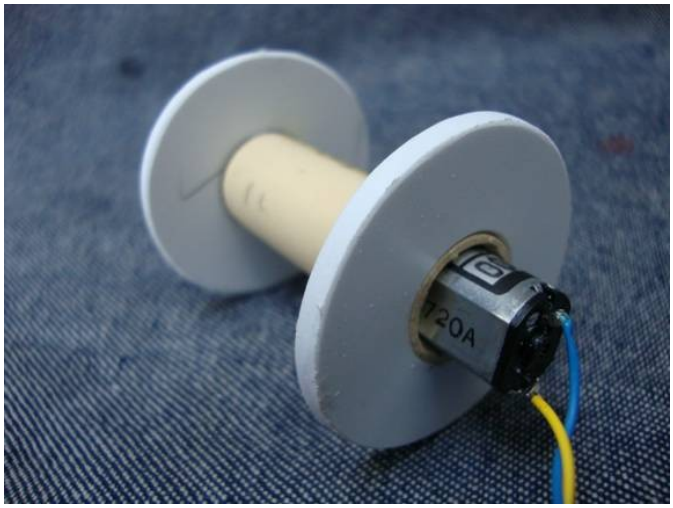


How to make a towing winch.
By Dr. Ron

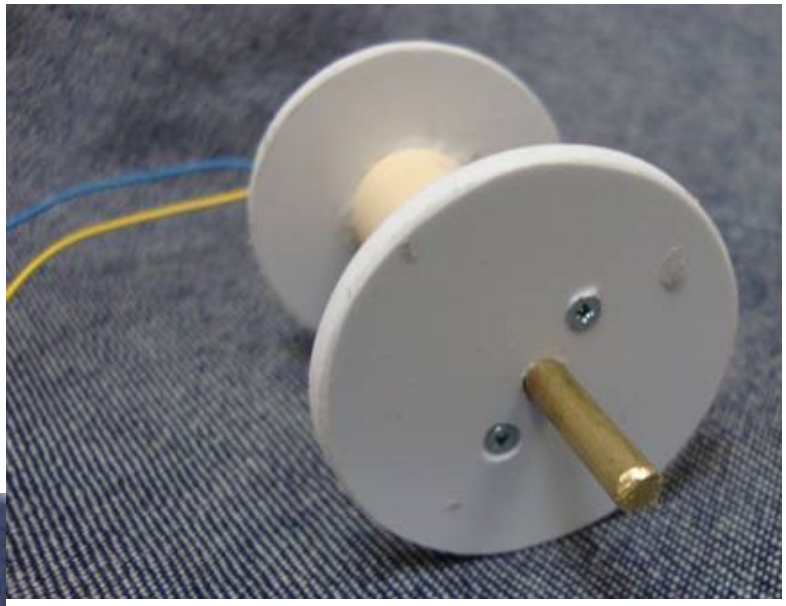
To make a towing winch as illustrated you will first need to acquire a small 12 volt gear head motor from All Electronics, E-Bay, Electronic Goldmine, or from other sources and mount it inside an appropriate sized drum shaft. In this case a ½ inch pvc pipe was used but had to be turned on the lathe to hollow out the inside a bit to allow the drum to turn on the motor.

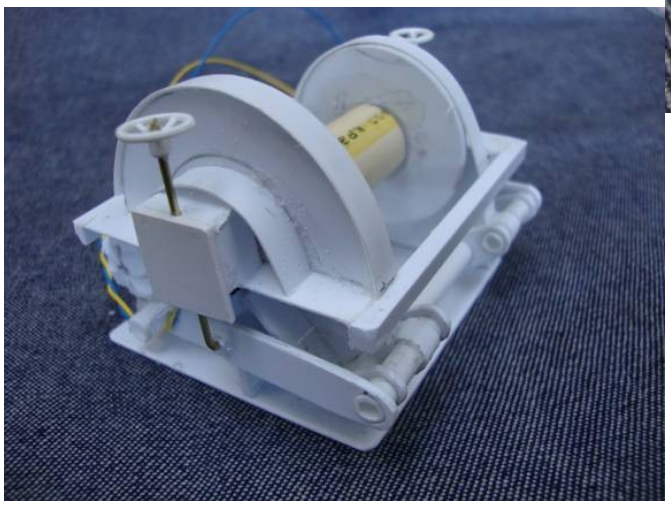
It was necessary to bore a ¼ inch brass rod to accommodate the shaft and then drill a hole and tap it to accommodate a 4-40 set screw to secure it to the hub. A piece of brass plate was soldered to the hub to which a a piece of 3,25mm styrene was attached. This was sized to fit snugly in the drum shaft and secured to the brass with #1 screws. This in turn was attached to the shaft with #1 1/4" screws.

The motor was allowed to protrude from the end of the drum shaft as illustrated and the end of the drum over the motor was drilled to fit over the shaft. This was then glued to the shaft and secured with small nails. The other end was attached to the shaft by first making a plug and attaching it to the drum end opposite the motor side.



It was then glued and screwed to the shaft. The ends of the winch were fabricated with 2mm styrene and the motor end made to secure the motor which had two flat surfaces. A 3/16" brass rod was drilled into the other end and attached to the side of the winch using a ¼" styrene tube and block.





The rest of the winch was made from various sizes and forms of styrene as noted in the illustrations. The design The design of the winch was from the Markey drawings of the winch used on the Lindsey Foss. *Dr Ron*