

# Sea Perch

## Kit & Instructions Change

The Sea Perch kit, instructions and parts list have had a significant change in the procedure for mounting the propellers onto the motors, and the parts & tools needed.

Since we can no longer obtain the propeller bushings, we have changed the way that the propellers are mounted on the motor shafts. This new method is simpler and faster to build, requires less expensive tools, and improves the efficiency of the motors. The cost of the parts is a few dollars more, but the savings in tools required can be significant.

Instead of chamfering the propeller and bushing, and push-fitting them together with a vice, we now use a “threaded coupler” as a propeller shaft adapter. The propeller is attached to the shaft adapter with two small nuts to hold it in place, and epoxy to secure it. The shaft adapter is epoxied onto the motor shaft.

This means that we no longer need to wait until after mounting the propeller to fill the motor container with wax, since we no longer need to push on the back of the motor. We also don't need the “machinist's scraper” and vise (although the vise is still useful to hold things while drilling and soldering). The only additional tool is the epoxy packet, mixing stick, and a place to mix them. Be aware of the hardening and curing times of the epoxy.



For details, download the updated manual (most changes are in Unit 2 – Thruster Assembly and the Parts List), from the “Building SeaPerch” page of the website:

<http://web.mit.edu/seagrant/edu/seaperch/>