

Table 1: A specifications list of mechanical attributes judged important in the design of the OysterBot

Building from the work of Frost *et al.* (1996) and in consultation with our Technical Adviser (M. Curran), we projected that the OysterBot would require the following attributes to successfully accomplish our goal of ropeless cage retrieval:

- Weight & Dimensions
 - Weight - <44 lbs. (20 kg)
 - Dimensions - <24 inches in any dimension
 - Tether: ≥ 25 m
- Performance
 - Thruster configuration for maneuverability
 - 4 vectored
 - 2 vertical
 - Payload – up to 5 lbs
 - Max. speed - ???
 - Maximum depth >10 meters
 - Auto-control for depth, direction, & speed
 - Lighting
- Sensory Capacity
 - Direction/Speed
 - Real-time video display
 - Depth sensor
 - Temperature sensor
- Mechanical Capacity
 - Onboard manipulator/gripper

Frost, A.R., A.P. McMaster, K.G. Saunders, and S.R. Lee. 1996. The development of a remotely operated vehicle (ROV) for aquaculture. *Aquacultural Engineering*. 15(6):461-483.