SeaWeed ROV Team

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We intend to keep the SeaWeed ROV comparable to other small ROVs on the market. Its dimensions will be smaller than 2 feet in length and height and less than 1.5 feet in width. The camera will have both pan and tilt operations and the lights will allow it to take video in dark conditions and steep water. The ROV will have a depth rating of 300 feet, therefore, we plan to have a tether at least 600 feet in length and we hope to utilize a suction cup and a suction arm to aid in hull inspection by "sticking" to the hull like a starfish or octopus. We are planning for the ROV to be suitable for any other investigative situations it will be used for ship hull inspections, as well as being able to inspect other oceanographic instruments. After reviewing several previous ROVs, we have decided to use the Hornet II as the model to design our ROV after. The ROV will be designed for research and recovery, specifically working in deep water. The objective of the SeaWeed ROV team is to design, build, and test a working investigative ROV. Specifications

Syntactic foam will provide flotation and lightweight aluminum and tempered glass will be made up of the ROV. The frame will be made out of aluminum and will be placed perpendicularly to the rear of the housing to help in turning forward and backward movement. One motor will be placed underneath the ROV for up and down movement and one will be placed on either side of the ROV for forward and backward movement. Two motors will be placed on each end to allow for left or right movement.

Instruments included in our design are camera, lights, pressure sensor, thermometer, compass, recovery arm, as well as an array of other oceanographic instruments. We are also planning to include a suction cup and a suction arm to aid in hull inspection by "sticking" to the hull like a starfish or octopus.