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Submersible Vehicle Design and Modification, Phase One

The world's oceans are the last frontier on the globe. An understanding of ocean conditions will aid the understanding of weather systems and the global environment. Remotely operated vehicles (ROVs) will assist in the process of exploring the oceans depths. This concept has application for military use. The engineering goal of this project was to design a submersible remotely operated vehicle with the ability to wield a camera, a LED light bank, temperature sensor, and a retrieval probe. The ROV was tested in 2, 5, and 11 ft of water in a swimming pool. The ROV met the engineering criteria of being capable to operate at a 5 foot depth. The ROV was able to retrieve a 1 lb diving ring using the underwater camera and retrieval probe. The temperature sensor correctly sensed temperature through the testing process. The engineering goal was met and exceeded. Redesign recommendations include angling the retrieval probe so it's visible by the camera, reconfiguring the switches on the control box, and making the vehicle amphibious and wireless.