

## **ABSTRACT**

An underwater robotic arm plays an important role in underwater rescue, submarine assembly of equipment for research and military purposes and protection of the underwater environment. Therefore, research on the underwater robotic arm has attracted more attention.

This dissertation thesis started with research on existing robotic arms to identify the most important design parameters. Through these parameters various ideas were developed for the design of an underwater robotic arm and finally, the ideal solution was chosen which led to further analysis. For the ideal and final idea, static stability was checked with the help of the Solidworks design program for each piece designed to see if they could cope with high pressures, which was one of the goals of this thesis. Any parts that did not have the required stability were subject to slight changes in design and geometry. Subsequently, after static stability was completed successfully, all parts were printed on the 3D printer, received little editing for better results. Finally, the construction drawings were created.

With the completion of the dissertation, we managed to successfully complete a difficult-to-construct construction, since the wet element, and specifically the oceans, is a difficult field to study, as it hides difficulties and pitfalls in its study.

**Keywords:** Underwater Robotic Arm, Solidworks, 3D Printer