BLUE ATLAS ROBOTICS

PROJECT END REPORT

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Development of a 2'nd generation underwater robot

PREPARED BY

BLUE ATLAS ROBOTICS

blueatlasrobotics.com
info@blueatlasrobotics.com

Introduction

The underwater technology market is expected to grow significantly in the coming years, driven by increasing demand for innovative solutions across segments such as shipping, critical infrastructure, and offshore wind.

Blue Atlas Robotics is transitioning from single prototype production to scaling up for series production of a highly complex product with numerous software and hardware compatibility challenges.

To prepare the next generation of our underwater robot, Sentinus, for series production and secure our position in an evolving market, we need further product development. This includes software/hardware integration, adding new functionalities, material and component selection, and optimizing for scalable production.

The shift from a single prototype to series production requires a comprehensive analysis of the current product, components, manufacturing and production processes, supplier choices, and development of product-specific processes and quality control based on the updated product.

The project will involve a complete mapping and analysis of material selection, components, and development/testing of new software/hardware integrations and functionalities for the next product generation

Results of project

The creation of a new generation of our underwater robot Sentinus, featuring new and improved functionalities, will enable us to launch a scalable series production in 2024 with reduced manufacturing costs.

A review of the existing Sentinus and the bill of material (BOM) used for the same, was used as the basis for setting specific targets for all the rest of the project's different tasks, per the below split into different hardware categories.

Vision System
Electronics
Cables, internally.
Lights
Thrusters with cable/connectors
Fiberoptic connectivity
Topside Power box/on robot
Tether with Power/Fiber Optic
Cables, externally
3D-printing
Long range controller
Cable spool (fiberoptic with power)

In parallel with this, a review process was conducted of the entire software architecture, and specific targets for all the rest of the project's different tasks were set, and aligned with applicable hardware tasks, to the extent these would impact the different software tasks.

At the conclusion of the project that has been conducted over the past 1 year, a full review, a complete assessment as well an update of our entire production value chain has been completed.

A streamlined supplier management & procurement strategy across all suppliers has been implemented, aligned with all the different sourcing, components, and outsourcing decisions made during the project.

As part of the work done in the past year, we have formal agreements in place with all suppliers, as well as having replaced and reduced our supplier base, to support our future scale-up plans aligned with the various numerous changes in the sourcing of parts and components that has been identified.