Underwater Budget Drone

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Recent trending on Industrial Revolution 4.0 demands a dedicated tool or device such as a Remotely Operated Underwater Vehicle (ROV) is required in assisting humans to perform their job efficiently. the tremendous increase event on drownings in Malaysia urge the demand for monitoring, Search and Rescue(SAR) mission. Though these cases seemed to be an isolated occurence and sometimes seasonal especially during flooding; the functionality of the ROV serve the purpose. The prototype developed has been motivated by the recent drowning Search and Rescue (SAR) mission which penalized the diver's life too. Current prototype exhibits not only cost effective but also serve the purpose for Search and Rescue (SAR) in shallow water; up to 200 metres depth. Affordable item has been opted in the construction of the Underwater Budget Drone (UBD) i.e. acrylic tubes for the body. Arduino Uno microcomputer and CAT5e Tethering Cable are selected as the connection of UBD are customized to the user's preference. Based on the experimental result, the UBD can dive up to 5 metres deep with a speed of 6 metres per minute; live streaming via laptop. It is with high expectation that the cost effective and feasibility on search and rescue utilizing the UBD can be benefited. First, the ease of controlling the UBD for monitoring and searching the victim(s) before the rescuer team dive. This will assist the diver to locate the victim for rescue efficiently without jeopardizing the life of the divers too. The prototype also serves as the baseline for more underwater monitoring research into oceanography to be performed at affordable cost.

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