PROTOTYPE OF GRIPPER SYSTEM ON REMOTELY OPERATED VEHICLE (ROV) FOR UNDERWATER OBSERVATION

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ABSTRACT

Technology in the field of Electronics or in the field of Robotics is currently developing very rapidly. This happens in the use of Electronic technology, especially Robots in everyday life such as in the industrial, health, agricultural, military and other sectors. The development of Robotics technology in these sectors will facilitate difficult and possibly unsafe work for humans to do directly, will be very helpful and facilitate human work such as Robot Technology which requires high accuracy and accuracy. Gripper is a Robotics Technology that is usually used to grip an object or can also help other Robots such as ROV which is usually used underwater and operated by a person or operator above the water surface, which aims to facilitate human work effectively and safely underwater. The gripper on the ROV is usually used to pick up or grip an object, to assist in the installation and maintenance of underwater equipment and so on. This research will create a Gripper prototype with the title "Prototype of Gripper System on Remotely Operated Vehicle (ROV) for Underwater Observation" then the result of this prototype is a Gripper that can be controlled from a remote control that is above the water surface with an ADC (Analog Digital) system. Converter) and Serial Communication. The gripper is equipped with a control system with an input output method for moving the clamp and linear sliding for back and forth movement. Linear Sliding is driven by a Servo Motor and equipped with Infra Red optical sensors to trigger the encoder on plates that have been punched on each side of the front and back of the Sliding plate.

Keywords*: Gripper, Robot, Observation, ROV(Remotely Operated Vehicle), Input.*