

ABSTRACT

Today, human life is increasingly facilitated by technological developments. Many scientists are competing in creating something. One of the cases is robots, robots are electromechanical devices that resemble living things such as humans, animals and plants. The making of robots has the purpose of facilitating human work, and also fulfilling research needs in technological development.

The design of the robot that is made is the implementation of a combination of animals that can creep like lizards combined with the soles of the feet that can suck like the arms of an octopus. To do this, an active suction cup is needed on the wall climbing robot. The active suction cup is a suction cup which can be glued or not when the vacuum pump regulates air pressure. Wall climbing robots are also designed to be able to transition from the horizontal plane to the vertical plane well.

In this final project, the wall climbing robot is run by automation with a predetermined logic control system. Therefore, a design is needed that can work optimally on wall climbing robots. By using an active suction cup design in this final project, to obtain optimal results when the robot is in vertical or horizontal conditions.

Keywords: octopus, vacuum pump, suction cup, wall.