

ABSTRACT

Robots in general can only operate in one field, on ground, air, or water. So that will be an obstacle in case of unexpected things like natural disasters and require a robot that can move freely in two fields. Therefore it is important there are robots that can be used in two or more field. Until now research on robots that can be used in two or more realms still continues. Amphibious robot is one of robot that developed from amphibian concept, that is robot that can operate on ground or in water. The thing that still continues to be developed in amphibious robot is how to make the robot can move stable either on land or in water, and how the propulsive system used by robots to be able to move on land or in water.

Based on this in this Final research, will be implemented the concept of amphibian on robot. The robot that will be designed and realized will be shaped like a tank with 2 pieces of dc motor as an actuator, and System Differential Drive as its maneuver system. The base of the robot body will use flat-bottom hull. For the wheels will be installed modified caterpillar wheel wheel by adding paddle. This amphibious robot will be remotely controlled via remote control panel.

With the design of shapes like tanks and basic bodies using flat-bottom hull, it is expected the robot can have a great balance. As well as the design of adding paddle to the wheel, it is expected that the robot can move on land or in water.

Keyword: *amphibious robot, tank, flat-bottom hull, system differential drive.*