

ABSTRACT

Floor cleaning robot RONER (Robot Cleaner) has mechanical components with frame design that can be used to clean the floor. Therefore, a dynamic and electro kinematic system was created to clean the floor. In addition the robot is equipped with the compass direction have output on the X and Y axis and than ROBOT can work. In addition to the frame, this robot can carry loads. RONER has 30cm long and 30cm wide, 20cm high and weight between 13kg-15kg. In the dynamic part there is a compass sensor that serves as a magnetometer or magnetic field direction, the robot can know the direction of the wind and magnetic fields. Test results from RONER using HMC5883L sensor has two methods namely static and dynamic testing obtained is a static X axis has an average value of 27° and Y static has an average value of 56°. Besides that, dynamic testing has X value 60° and Y 90°.

Keywords: Electro kinematic and dynamic robot, Compass sensor, Frame, RONER (Robot Cleaner)