ABSTRACT

Cleaning the room is one of the usual activities in daily life, usually done by sweeping the floor using a broom. Sweeping requires energy, the larger the room, the more energy will be released. One of the tools that can help cleaning the room is floor cleaning robot. Roner Mk. II is a floor cleaning robot that can move automatically to clean the floor with a configured algorithm. Algorithms for robotic movements utilize data from cameras that detect objects that are considered as rubbish. LIDAR (Light Detection and Ranging) is also used in this robot to find out the size of the room and know the objects around it. This algorithm allows the movement of RONER Mk. II in the form of wheel rotation towards the desired direction.

Keywords: Webcam Camera, LIDAR (Light Detection and Ranging), Arduino, ROS (Robot Operating System), Raspberry Pi