

# EXERCISING ROBOT

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## ABSTRACT

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Over a period of time, a lot of human jobs has already replaced by robot due to the evolution of technology. People started to believe that someday, robot will be able to serve the human in various task that are dangerous, repetitive and boring such as being a traffic police, security guards, entertainer or even a soldier. In other words, human jobs will be much easier if robot is able to do above task.

Robot can be program to behave like human being in which robot will mimic human movements. An exercising robot has been designed to perform human movement such as stand, walk and squat with a RF controller to give command to the robot. To performing human like movement, 3 servo motors are placed on the robot leg to work like human ankle, knee and hip. Servo will rotate to preset angle to assure the robot will be able to stand, squat and walk. Two buttons are in the remote control to let user to choose either to let the robot to stand, walk and squat or the second button to let the robot to the default position of standing.

When the robot is walking, squatting and standing, this is considering a task. When robot finish its task, and the user don't press any button, robot will continue to repeat its task until the user press the second button to stop it and remain as a standby position. Robot will have to balance itself while doing the entire task above.

Last but not least, this report will continue with the aim and objectives of the project. Figures are show to provide more information of the entire report. In chapter two, components will be explained clearly with the figures shown as well. Besides that, chapter three will tells more about the hardware and software that included in the project. Finally, results and discussion is provided in the following chapter and conclusion will be after that.