

ABSTRACT

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Prototype of Humanoid Robot With Basic Movement Ability

(vii + 97 pages, 5 tables, 66 figures)

There were many robots being developed in Indonesia, but most of them are mobile robot. Since there weren't many walking robot being developed, in this final project, a prototype of humanoid robot will be built.

The humanoid robot can be controllable and can move by itself. The robot built consists of twenty seven servo motors, one microcontroller and one servo controller. For autonomous mode, the robot will use two sensors. Parallax Boe-Bot CMUCam will add the ability of the robot to follow a color object and Parallax PING))) Ultrasonic Range Detector will add the ability as a wall follower. For the controlled mode, the robot will be connected to a PC through serial port.

After several simulations, due to the stability problem on the leg, this prototype of humanoid robot was only being able to move upper half of its body. The entire mode will work after the robot can move with its two legs. For the moment, the autonomous mode on robot can only simulate the movement by using its head.

References : 14 (1986-2006)