

## ABSTRAK

### DESIGNING PROTOTYPE ROBOT MATERIAL HANDLING

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The aim of this final assignment project is to design prototype robot material handling which the function is to move the material from one place to another place.

The method of design prototype robot material handling was started from drawing design, doing the technique analyze, deciding the material used, deciding the components needed, the process of making components, assembling robot, robot programming, and the last to examine the robot ability.

The robot maximum capacity is approximately 97.5 gram. The robot maximum vertical reach move is approximately 20 cm and the maximum horizontal reach move is approximately 36 cm. The controller used is to microcontroller ATmega 16. Actuator uses DC motor and servo meter HS-311 standard, power input needed is approximately 7,5 watt.

Key words: Prototype robot material handling, robot maximum capacity, the robot maximum reach.