

**DESIGN AND CONSTRUCTION OF AN AUTOMATIC
CLOTHING SCREEN PRINTING SYSTEM USING
PNEUMATICS**

Student Name : Misrizal

Student Register Number : 3103211285

Supervisor : Abdul Hadi, S.T., M.T.

ABSTRACT

Pneumatics currently plays an important role in the development of automation technology, in addition to hydraulics and electronics. The pneumatic automated t-shirt screen printing system generally consists of resource elements, input signal elements, signal processing elements, signal control elements and output elements (actuators). To support knowledge about pneumatics, it is necessary to have supporting tools for pneumatic practicums to increase student knowledge, one of which is a pneumatic demonstration tool or simulator. The purpose of making this final assignment is for students to be able to design a pneumatic simulator and also be able to provide examples of applications for the use of pneumatic automation systems in the industrial world. The purpose of this study is to assist work in small industries. The air cylinder sensor functions as an object detection input to activate solenoid valve 1 and solenoid valve 2. In the push button test, 0 indicates the push button is not pressed and 1 indicates the push button is pressed. In the final test, the t-shirt screen printing process was able to screen print 1 shirt in an average time of 13,4 seconds.

Keyword: *Clothes screen printing, pneumatic, solenoid.*