

**Product Name :**  
PLC Application: Machine Process Control System or  
Material Handling Process

**Product Code :**  
ELABHTOOLSUK480004



**Description :**

PLC Application: Machine Process Control System or Material Handling Process

**Technical Specification :**

A compact teaching and practice unit for the control of a materials handling process using a PLC.  
Two processes can be simulated: a punching process, or workpiece control in the form of a sort operation. All components are in a clearly laid out design.  
Black and white cylindrical workpieces are fed from a container onto a conveyor belt.  
On the belt is a reflex photoelectric proximity switch which differentiates between light and dark and feeds the white items to the pre-selected process (punching or sorting).  
The black workpieces are always carried to the end of the belt, where they drop into a collector.  
Compact training unit for experiments in the field of automation  
Handling device with solenoid valves  
Double acting cylinder (15 mm stroke): fixing /discharging of work pieces to container  
Double acting cylinder (80 mm stroke): pushes work piece onto conveyor belt  
Double acting cylinder (40mm stroke): executes the process (sorting or punching)  
Conveyor belt with guide plates and DC motor  
Cylindrical Plexiglas storage container holding 11 work pieces  
15 work pieces made of Polyoxymethylene (POM): 10x white, 5x black  
Pneumatic components fitted with quick-release couplings for 4mm hoses  
Operation of actuators with compressed air  
Lab jacks to external PLC  
Set of measuring leads and pneumatic hoses

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Compressed air supply: max. 6bar, 3bar recommended  
3 electrically operated 5/2-way valves with spring return and with pilot valve.  
Reflex photoelectric proximity switch pnp type and light switching of 5...150mm  
Geared DC motor: with reduction ratio of 142.5:1, nominal torque 5.92 NM, nominal speed 22rpm.

 **LAB ENGINEERING**

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