
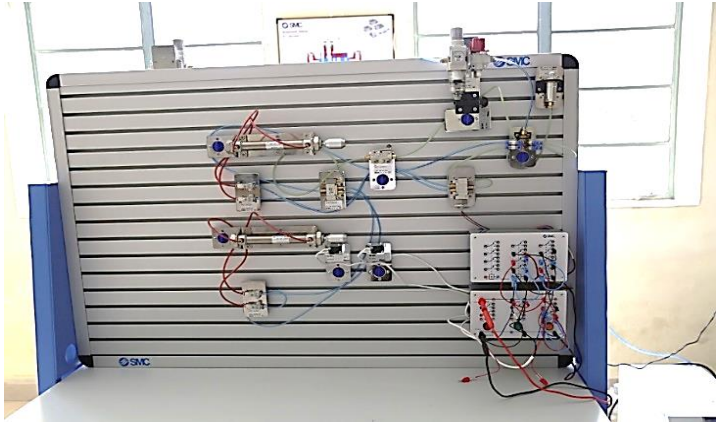
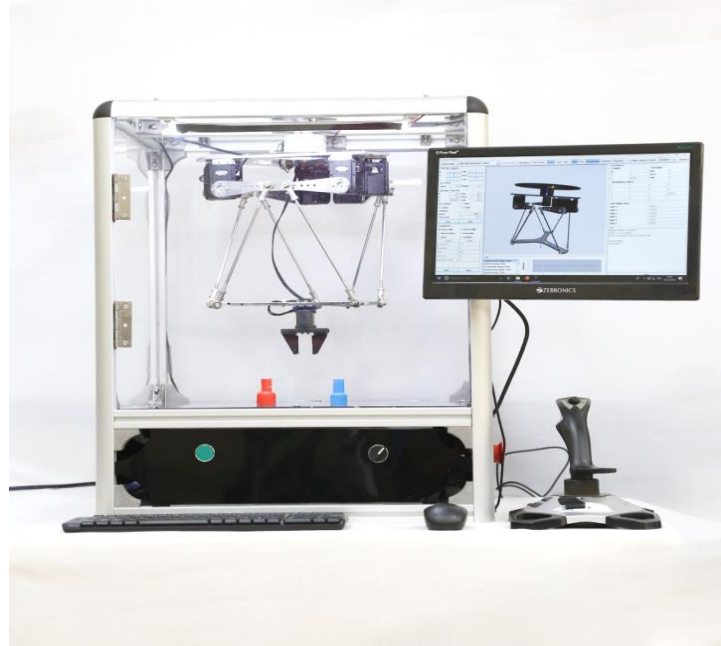


<p>Automation Lab</p>	<p>Car Simulator</p>	 <p>In car simulator, the seating system of a car is installed on a parallel robot structure. The performance of the parallel robot is analysed by providing various load. Also, its performance is analyzed by providing left and right turning movement.</p>
	<p>Electro-Pneumatic Control System</p>	 <p>Design a double cylinder based pneumatic system controlled by electro-pneumatically. High pressure air is supplied from the compressor to operate the pneumatic circuit. All valves and cylinders are controlled electronically.</p>

Pick and Place Electro-Pneumatic system



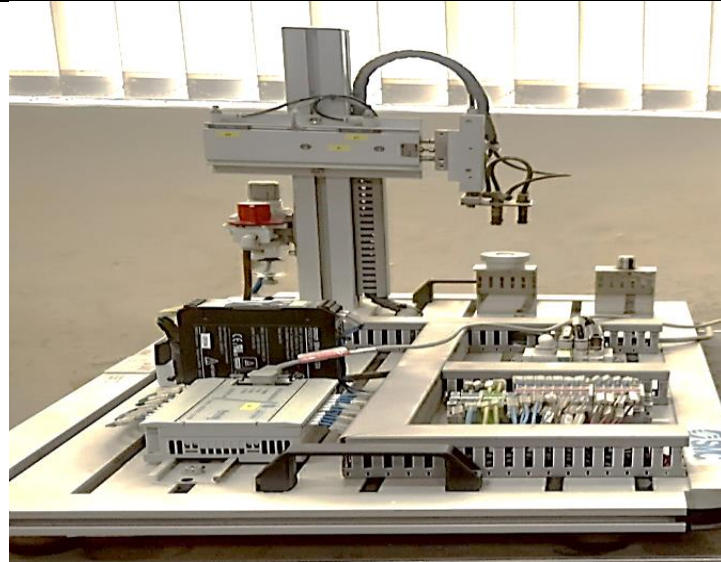
It is an electro-pneumatic controlled system which consists of a parallel robot structure. This set-up is used to demonstrate the pick and drop operation.

KUKA robot



The main components of the test set-up of KUKA robot are controller, smartPAD teach pendant and robot structure. In KUKA robot, all the joints are revolute joints. The degree of freedom of the KUKA robot is six. The controller controls the robot operation. Different experiments such as Tool teaching, Base teaching, Pick and drop operation, Path programming etc. can be performed from the set-up.

Electro-Pneumatic control system (PLC)



The test-up consists of two pneumatic cylinders. One cylinder provides horizontal movement, and another cylinder provides vertical movement. Both cylinders are controlled by PLC controller. At the end of the vertical cylinder three fingers end effector is connected. This end effector helps to perform the pick and drop operation. A PLC programme executes the PLC controller and hence the test set-up is controlled by PLC.