

ABSTRACT

To move (lift) of an object from a lower to a higher place or otherwise needed a tool, a tool in question is the Elevator. To run the elevator, we need a system that can control the movement of the elevator in order to function as intended. If so, the prototype elevator control system uses PLC as a means of controlling. Programmable Logic Controller (PLC) is basically a computer that is specifically designed to replace relay-based control systems. By using the PLC-based relay system design easier and modified.

In this final task will be designing and drafting prototype lifts 4 floors. Elevator is driven by DC motors. PLC used to control a DC motor and its supporting components. PLC used is CP1L OMRON PLC has high speed and technologically smart and powerful. The working principle of the elevator adapted to lift the actual circumstances.

At the time the elevator moves upward if there is demand down on the floor which is smaller than the destination floor, the request is ignored. Conversely, if demand falls are on the floor that is greater than the intended floor then the elevator to the floor. At the time the elevator moves down when there is rising demand in the floor greater than the destination floor, the request is ignored. If demand rises are on the floor which is smaller than the destination floor elevator to the floor. The elevator cabin door will open when they arrive at the destination and when there is a call instruction to close the door on the cabin in the elevator.

The realization of the Final Project entitled "Design and Simulation 4th Floor Elevator Omron PLC based CP1L" can not be implemented in accordance with the specifications and limitations problems that have been set by the author because at the time of mechanical testing, hardware and software performance is out of sync.

Key words: PLC OMRON CP1L, Relay.