INTOUCH HMI SIMULATION OF ANTI COVID LIFT SYSTEM PROGRAM BASED ON SIEMENS S7-1500 PLC USING TIA PORTAL SOFTWARE

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ABSTRACT

The COVID-19 pandemic (Corona Virus Disease 2019) is caused by a corona virus called SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2). The world health organization or WHO (World Health Organization) said that the transmission of the virus can be through the surface of objects. So it is advisable to always maintain cleanliness by diligently washing hands, cleaning the environment, houses, vehicles, and surfaces of objects that are often touched, and maintaining a safe distance between people when in crowded places such as in malls or in elevators. Therefore, a tool is needed to be able to spray disinfectants in the room. Based on the research background that has been explained, the problem formulation of this research is how to make a simulation of an elevator system program with a prototype spraying disinfectant using an actuator, photo sensor, and a PLC-based exhaust fan. In carrying out this research, the goal to be achieved is to produce an Anti Covid Lift simulation system based on Siemens S7-1500 PLC using InTouch HMI and TIA Portal software. Based on the results of the tests that have been carried out, the precision of the BEN300-DDT photo sensor reading reaches 99.62%. The average error for water pump voltage readings is 0.357%, and the average error is 1.12%.

Keywords: *Covid-19, Disinfectant, Spraying, PLC*