

## **ABSTRACT**

*Industrial world is rapidly growing and did so much evolution, of course including manufacturial industry. The growth of industrial chaged it self toward evolution, one of the example is the changed in industrial proses. In the era, industrial activity send industrial world to use new technolgy knowing as Otomation. Otomation technology is used almost all in industial world to increase capacity production , and help the worker work easier. Otomation system can operate 24 hours without stopping that immediately increase the eficiency of work time. Otomation system need an essential hardware called PLC (programmable Logic Controller) that has fuction as control part for otomation system. PLC in otomation system also has function for connecting all machine in industrial plant using wired connection to a PLC that enable all machine can be integrated. Although PLC has abbilty to controll all workstation but when a PLC controlled all of that process the troubleshooting when something wrong with the program will take longer time and harder to sorlve it. Also the number of input and output port is limited, so when the number of machine that used in industrial more than the number of input and output port that PLC has we need another PLC to control it.*

*Design an integrated otomation system enable machine that controlled by different PLC but still have relation work can exchange data to another PLC. with this integrated PLC system can ensure proces that controlled by another PLC work simultaneously.*

*Desing an otomation system at Bottling Plant that that consisting three workstation, that workstation are Workstation Filling, Sorting, and Stacking used as simulation for integrated three PLC at eksisting Bottled Water Production. Three PLC integrated using Primitive Communication Method thar connectin input/output PLC one to another. From the research we can assume that integrating PLC use Primmitive Communication is enable.*

**Keywords :** *Automation, Programable Logic Controller, Integration, Primitive Communication*