

Design of a filling and capping system for products using PLC and WinCC for control and monitoring

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Abstract: In the context of Industry 4.0, the issue of automation in production lines has become more urgent than ever. This topic focuses on designing a product filling and capping system using PLC (Programmable Logic Controller) and WinCC (Windows Control & Communication) to control and monitor this process. The objective of the topic is to build an effective automation solution, increase productivity, and reduce labor in production lines. The research method includes analyzing technical requirements, designing the system according to a distributed model, deploying the WinCC application for the user interface and PLC for control processes. Through this topic, significant contributions to the field of industrial automation are expected.

Keywords: PLC, WinCC, industrial automation, filling, capping of products