

Design of a PLC-controlled contact steel welding machine.

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Abstract: This research focuses on the design and implementation of an automation system in the steel welding process. The research context covers the necessity of optimizing the welding process to meet the increasingly high quality requirements of industrial products. The objective is to build a control system based on a PLC (Programmable Logic Controller) to execute and manage the contact steel welding process. The research methodology includes analyzing technical requirements, designing mechanical and electronic systems, and implementing the application in a manufacturing plant. The significance of the topic lies in its ability to improve work efficiency and reduce errors in the steel welding process, thereby contributing to the development of automation technology in the manufacturing industry.

Keywords: PLC, contact welding steel, automation, control system, manufacturing plant