

Design, simulation, and operation monitoring of a robotic arm system model for picking and classifying products by height using an HMI screen.

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Abstract: This topic aims to research and design an industrial automation system by building a robotic arm model capable of picking and classifying products based on height. The topic focuses on practical contexts, especially in production areas requiring high precision. The objective of this research is to build a system that can optimize the production process through the use of robot technology and an HMI screen to monitor operations. The applied method combines theory and experimentation to ensure high practical applicability. The expected results will provide useful solutions for the industry, while contributing to the development of robotic automation science and engineering.

Keywords: robotic arm, product sorting, HMI, automation, simulation