

ABSTRACT

Robots today are much different than they were even just ten years ago. As they've evolved, robots have incorporated built-in safety features to minimize workplace incidents and even work directly alongside human workers. With a diverse range of end-effectors and robot designs, they've also been able to greatly expand their potential uses compared to earlier robots. Robots are now easier to program than ever before, with some robots not even needing programming knowledge, whereas traditional robots required unique expertise for programming. On top of this, robots are now connected to internal MES and ERP systems to provide performance feedback and advanced production analytics. Most impressively, as all these new features have been added to modern robots, their initial costs have been steadily decreasing, making them a viable solution for just about any industrial operation.

Keywords: Robot, Program, Microcontroller, Component