DESIGNING A TURRET MOUNT MODULE FOR A MODULAR MOBILE ROBOT PLATFORM

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Abstract

The artlile focuses on the support-rotary module design. We developed a model of a digital PID controller and compared the methods for adjusting its position. As a result of the comparison and using analytical methods, manual tuning, as well as a PID controller with switching in response to the unit step excitation, we found that the most qualitative transient process was provided by a PID controller with switching. We built a digital PID controller model designed to implement a PID controller on a microcontroller.

Keywords

Layout featuring a piano wheel, mobile robot, PID controller, switchable PID controller, digital PID controller

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