Education Platform
for Repetitive Control
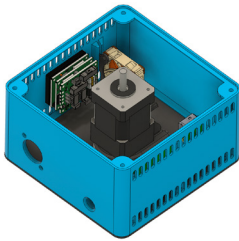

REX CONTROLS
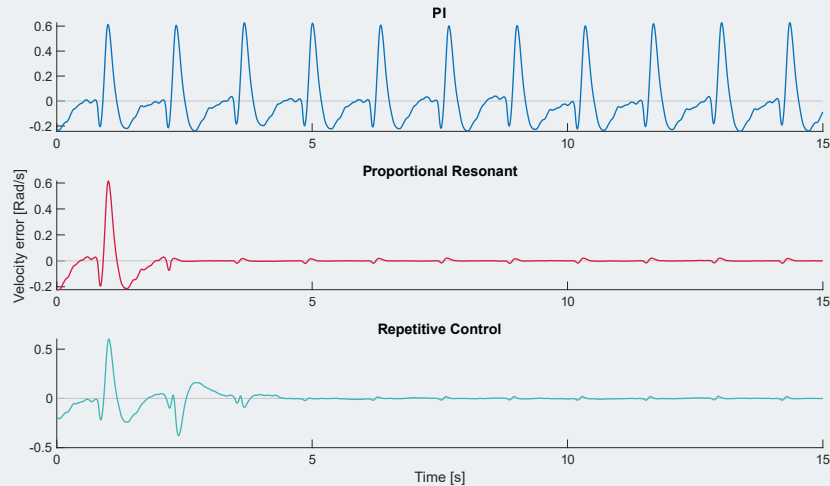
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Education Platform for Repetitive Control

The ERPC educational model is a compact tool for experimental validation of designed controllers to control a servo-motor's rotational speed with a periodic load torque generated by freely inserted permanent magnets. With the model it is possible to test the quality of angular speed control using PI (Proportional-Integral), PR (Proportional-Resonant), and RC (Repetitive Control) controllers without any further modifications of the software setup.

Motor velocity for PI, PR and RC controllers

Quick Specification and Dimensions

Product name	Education Platform for Repetitive Control (EPRC)
High-performance BLDC motor	Nanotec BD43, Encoder resolution 20 000 CPR
Advanced motion controller V2	Powered by an embedded version of REXYGEN
Embedded controller	Raspberry Pi 3 Model B+ with REXYGEN runtime
Dimensions of EPRC	150 mm x 150 mm x 104 mm
Power Supply	100÷240V AC to 24V DC, 2.5A
Controller design tool	www.pidlab.com