# Technical Specification

## Model: EZ-PID001

**First Order module**

*Dimensions: 210mm (L) x 140mm (W) x 80mm (H)*

*Voltage rating: +12V / -12V / GND*

*Connection: 4-pin power connector, 4x BNC connector*

**PID controller Module**

*Dimensions: 210mm (L) x 140mm (W) x 80mm (H)*

*Voltage rating: +12V / -12V / GND*

*Connection: 4-pin power connector, 3x BNC connector*

**Application Module**

*Dimensions: 270mm (L) x 160mm (W) x 80mm (H)*

*Voltage rating: +12V / GND*

*Connection: 2-pin power connector, 3x BNC connector*

**ATX Power Supply**

*Dimensions: 150mm (L) x 140mm (W) x 86mm (H)*

*DC Output: +12V / -12V / GND*

*Output Current: 28A*

*Connector: 4-pin connector / 2-pin connector*


Control Ez
Control Easy!
Machine Vision & Control Automation

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**Industry Machine Vision, Motion, PLC & PC Control Automation Systems.**
**Education Control Training Systems.**
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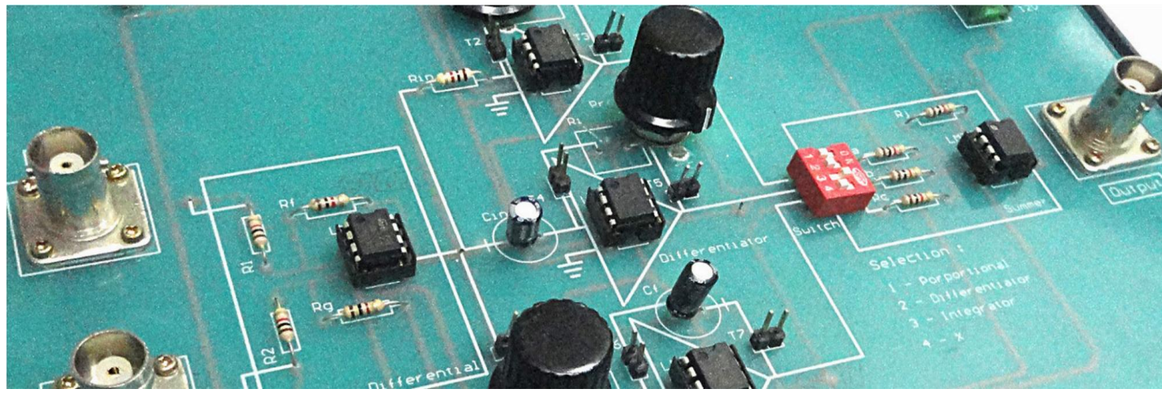
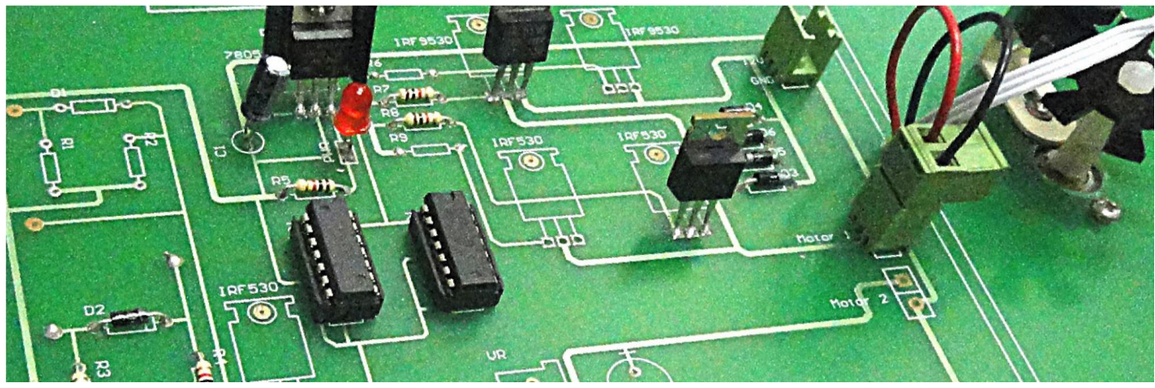
*Specification subject to change without prior notice due to continuous improvements of the product

# First Order System and PID Controller Training Kit

## Control Engineering made Easy



# ITEMS INCLUDED

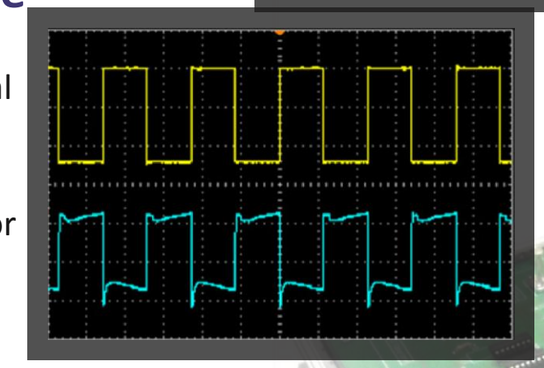
## First Order Module

Analyze the characteristic of First Order system with typical input signals. Step, ramp, and sinusoidal responses of an open loop control system



## PID Controller Module

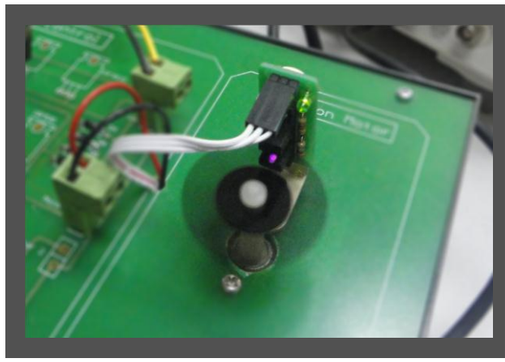
Understand the combined effects of proportional, integral and derivative controllers. Perform PID tuning and observe the plants response for different compensation gain.

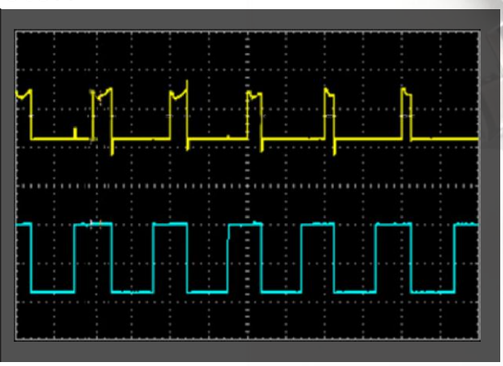


## Application Module

Study the feedback control using an electronic controller (rotary encoder feedback) and the motor speed control using PWM (pulse width modulation).

Observe the effect of the PID controller on the motor speed with the application of physical disturbance and load over the motor.





## BNC Connectors

Increases the accuracy of the signals sent with 50ohm BNC cable.



## Tool Case

Rugged, light weight tool case designed and reinforced with aluminum frame to provide protection of the modules.

## ATX Power Supply

Noiseless power supply With 12cm silent cooling fan, Over-voltage and short-circuit protection to ensure the system stability.

## Comprehensive Manual

Student and Teacher manual is included with some detail about the overall circuit and sample questions with answers.