



Control Systems Teaching Platform
K-CSP Product Information

Description

Kylowave Inc. (www.kylowaveeducation.com) has developed a new teaching platform called the K-CSP to enable affordable implementation of state-of-the-art course curriculum in control systems. K-CSP is useful in courses from introductory, senior undergrad up to various graduate level course studying analog and digital controllers. K-CSP provides a deeper experience for the students and one which provides for more practical hands on skill development for what the engineer will face in industry. Our product is a small footprint and lower cost system, with additional features not available in existing products.

Customers

University and college undergraduate and graduate courses in control systems and mechatronics

Value to Customers

- A total cost of ownership 2X to 3X lower than existing products
- Flexible platform that can serve many Labs and several courses with the same setup
- Ruggedized to support students to develop hands on skills transferable to the industry

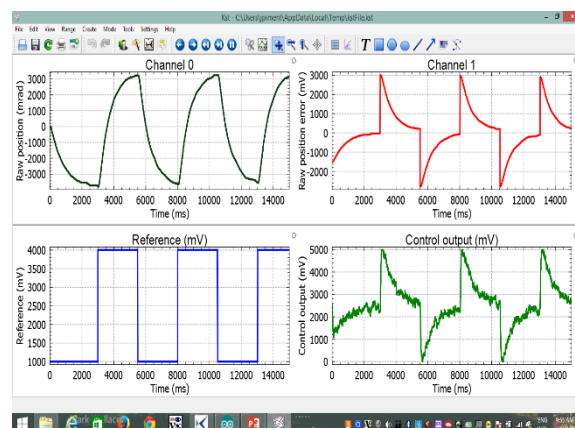
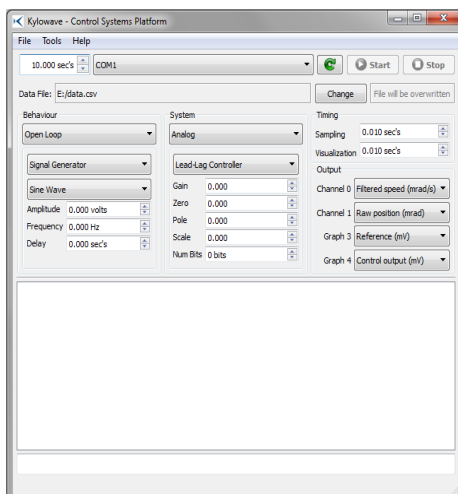
Typical Applications

Any or all of the following:

- Analog PI, PID and PI-PD control systems
- Digital PI, PID and PI-PD control systems
- Position, speed and torque controllers
- Lead-lag and state-feedback controllers
- Renewable energy powered motion control
- Data acquisition and signal filtering
- Integration to Matlab/Simulink and LabView

Introducing K-CSP, a software-defined control systems teaching platform that consists of:

- ✓ Configurable software that enables the instructor to abstract material not relevant to the course to focus on the parts he is teaching
- ✓ Laboratory experiment manuals developed by electrical engineering professors that can be customized for your specific needs
- ✓ Arduino-based to open the range of available open source software to support different hardware configurations and different experiments
- ✓ High quality DC motor for improved control linearity
- ✓ Exporting experimental data to Matlab and Excel for report preparation
- ✓ Attractive pricing.





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Specifications

BUCK-BOOST DC-DC CONVERTER	
Input Voltage	Nominal: 12 VDC
Output Voltage	Nominal: 12 VDC
Power	Maximum: 12 W
DC MOTOR	
Rated Voltage / Rated Power	12 VDC / 4 W
Rated Speed	7600 RPM
SENSORS	
Voltage, current, speed, position and temperature accessible through the analog and digital connectors	
High-resolution QEI position encoder (8400 pulses per flywheel rotation)	
Signal conditioning, Internal PWM digital-to-analog converters and hall-based current sensors	
CONNECTION INTERFACES	
Ruggedized interfaces with short-circuit and over-voltage protection	
Medium Voltage: DIN Rails Terminal Blocks Amphenol PCDS connector for 300V, and 32A, compatible with wire gauge 16-28 AWG	
Low Voltage: 2X17 positions Molex male socket	
Power Adaptor: 2.1 mm power adaptor jack with positive at the center	
ENVIRONMENTAL SPECIFICATIONS	
Operating/Storage Temperature	0°C to +70°C / -25°C to +85°C
Humidity	95% RH
Lead-free Compliance	Lead free / RoHS Compliant
PHYSICAL SPECIFICATIONS	
Case Material	Polycarbonate (flammability to UL 94V-0)
Weight	Approximately 200g
Dimensions	Approximately 7.2x5.32x1.59 inches, polycarbonate, Rating IP65 and Flammability rating UL94 HB

K-CSP Pricing

Please contact us at sales@kylowave.com for latest pricing.

Warranty

Limited hardware one-year manufacturer warranty. Free support for initial setup, training and integration to your existing Lab. Free software and libraries updates.

How to order

To order, please contact
Kylowave Inc.
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spiment@kylowave.com

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