Quanser Consulting
ADVANCED TEACHING SYSTEMS

EDUCATIONAL PACKAGE PRICE LIST

ALL PRICES ARE IN US DOLLARS AND DO NOT INCLUDE SHIPPING, INSURANCE, DUTIES AND TAXES.
NOTE: ALL SYSTEMS INCLUDE EXPERIMENT HANDBOOKS, MULTIQ BOARD AND WINCON 3.0 / SIMULINK CONTROLLERS.
PACKAGES WITHOUT MULTIQ OR WINCON PLEASE LET US KNOW AND WE WILL DEDUCT THE PRICES ACCORDINGLY

ROTARY MOTION-BASED PACKAGES

#	Name and Contents	What you can do with the components	Reg. Price	Edu. Price
1	***Ball & Beam & SRV02*:** • 1 SRV02 • 1 BB01 • 1 SS01 • 1 UPM1503 • MultiQ-0E & WinCon 3.0	• servo positioning experiments with SRV02 • attach BB01 for classical ball and beam experiment and SS01 to run Ball & Beam in master/slave mode • **SRV02 allows you to add additional modules easily and cost-effectively to create many new experiments: FLEXCAM™, ROTFLEX™, ROTPEN™, 2D-ROBOT™, 2D-GANTRY™ and GYRO™.**	$9,435.00	$6,902.00
2	***Flexible Link / FLEXCAM™ & SRV02*:** • 1 SRV02 • FLEXCAM™ • 1 UPM1503 • MultiQ-0E & WinCon 3.0	• servo positioning experiments with SRV02 • study control of flexible links • FLEXCAM™ can be mounted on the IP01 instead of the pendulum using a custom coupling, resulting in a unique flexible inverted pendulum (see FLEXPEN™)	$8,995.00	$6,550.00
3	***Gyro / Stable platform*** • 1 SRV02 • GYRO™ • 1 UPM1503 • MultiQ-0E & WinCon 3.0	• servo positioning experiments with SRV02 • study gyroscopic action and stable platform control	$8,545.00	$6,190.00
4	***SRV02 FAMILY*:** • 1 SRV02 • 1 BB01 • 1 SS01 • FLEXGAGE™ • ROTFLEX™ • ROTPEN™ • 1 UPM1503 • MultiQ-0E & WinCon 3.0	***☞AMAZING VALUE AND VARIETY☜*** ***FIVE EXPERIMENTS IN ONE SET!!!*** • Servo positioning experiments with SRV02 • Ball and beam • Flexible link • Flexible joint • Rotary inverted pendulum	$13,435.00	$9,580.00
5	***SRV02-E FAMILY*** • 1 SRV02-**E** • 1 BB01 • 1 SS01 • FLEXGAGE™ • ROTFLEX-**E™** • ROTPEN-**SE™** • 1 UPM1503 • MultiQ-**2E** & WinCon 3.0	***☞AMAZING VALUE AND VARIETY☜*** ***SIX EXPERIMENTS IN ONE SET!!!*** • Servo positioning experiments with SRV02 • Ball and beam • Flexible link • Flexible joint • Rotary inverted pendulum • Self-Erecting rotary Inverted Pendulum	$14,435.00	$10,342.50

LINEAR MOTION-BASED PACKAGES

6	***Inverted Pendulum*** • 1 IP01 • 1 UPM1503 • MultiQ-0E & WinCon 3.0	• perform the classical Inverted Pendulum experiment • linear servo positioning • expand upon this basic linear motion module by adding modules to create SEESAW™, SEESAW/PENDULUM™, and FLEXPEN™	$8,745.00	$6,350.00
7	***Self-Erecting Linear Inverted Pendulum*** • IP-02 Full swing IP • UPM 1503 • MultiQ-2E & WinCon 3.0	***Four experiments in one***: Servo, Inverted Pendulum, Self-Erecting Inverted Pendulum and Linear Gantry. Cart position and pendulum angle are measured using quadrature encoders. ***IP02 can be used with all linear motion modules to perform Seesaw, Seesaw/Pendulum, Linear flexible joint, etc.***	$9,495.00	$6,950.00
8	***Seesaw and Pendulum Experiments*** • 1 IP01 • 1 SEESAW • 1 UPM1503 • MultiQ-0E & WinCon 3.0	• perform the classical Inverted Pendulum experiment • servo positioning experiment • perform SEESAW™ experiment • can also mount linear flexible joint on top of Seesaw	$10,745.00	$7,950.00

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North American price... For other locations, please contact you local distributor

See over...

LINEAR MOTION-BASED PACKAGES - cont'd

#	Name and Contents	What you can do with the components	Reg. Price	Edu. Price
9	***Seesaw/ Pendulum Complete*** • 2 IP01 • 2 SM01 • 2 UPM1503 • 1 SP01 • MultiQ-0E & WinCon 3.0	• 2 independent Inverted Pendulum experiments • 2 independent Seesaw experiments • 1 Seesaw/Pendulum • can also mount linear flexible joint on top of Seesaw	$19,345.00	$14,830.00
10	***IP01 Family*** • 1 IP01 • 1 LINFLEX™ • 1 SEESAW™ • 1 UPM1503 • MultiQ-0E & WinCon 3.0	***☞AMAZING VALUE AND VARIETY☜*** ***FIVE EXPERIMENTS IN ONE SET!!!*** • Servo positioning experiments with IP01 cart • Classical inverted pendulum • 2 Masses and a spring • Seesaw •Seesaw with flexible structure	$12,245.00	$8,687.50
11	***IP02 Family*** • 1 IP02 • 1 LINFLEX-**E**™ • 1 SEESAW-**E**™ • 1 UPM1503 • MultiQ-2E & WinCon 3.0	***☞AMAZING VALUE AND VARIETY☜*** ***SEVEN EXPERIMENTS IN ONE SET!!!*** • Servo positioning experiments with IP02 cart • Classical inverted pendulum • Self-Erecting inverted pendulum • 2 Masses and a spring • Seesaw • Seesaw with flexible structure • Linear Gantry swing control	$13,050.00	$9,637.50
FULL LAB SETUPS				
12	***Undergraduate Lab*:** • 5 SRV02 • 5 UPM1503 • EX01 Control Course • 5 MultiQ-0E & WinCon 3.0	5 independent servo control stations for a controls fundamentals course. Allows you to add ***additional modules later to create new experiments*** (e.g. ROTFLEX™, ROTPEN™, 2DROBOT™, 2DGANTRY™, FLEXCAM™ and GYRO)	$32,725.00	$22,950.00
SPECIALTY ITEMS				
13	***2D Flight Simulator:*** • FLYTESIM™ • 1 UPM2405 • 1 UPM1503 • 1 MultiQ-2E & WinCon 3.0 • Joystick	An exciting experiment in multivariable control. ***A slipring allows for infinite yaw!*** Intriguing both visually and as a control problem. Two propellers driven by high quality DC Servo motors are used to control the pitch and yaw axes. A joystick is supplied to compare human operator performance with computer control.	$14,195.00	$10,710.00
14	***3D Flight Simulator:*** • FLYTESIM 3D™ • 2 x UPM 2405 • 1 MultiQ-4E & WinCon 3.0 • Joystick	Three degrees of freedom: Pitch, travel and elevation axes measured with encoders. 2 DC motors with propellers. ***A slipring allows for infinite travel!*** The system is highly coupled and is very interesting both as a control problem as well as visually. A joystick is supplied to compare human operator performance with computer control.	$17,495.00	$13,300.00
15	***SFLE*** ***Large Single Flexible Link Experiment***	Direct drive motor with 12000 line encoder. Linear CCD camera to measure the position of 4 LED's placed on the beam. Measure and control up to 4 bending modes.	$24,000.00	$22,000.00
16	**Planar Self-Erecting IP** • SRV03 • PLANAR IP • UPM2415-PWM • MultiQ-2E & WinCon 3.0	Planar rotary inverted pendulum. Design nonlinear controllers that swing the pendulum into the upright position in either the ***elbow up*** or ***elbow down*** configurations. ***A slipring allows for continuous rotation of the arm***. The direct drive SRV03 can be used with all rotary motion based experiments.	$11,175.00	$8,294.00
REALTIME CONTROL PACKAGES				
18	**WinCon 3.0**	WinCon Realtime Control Software for Windows 95/98. Windows NT is also available - please add $200. **WinCon is also bundled with the MultiQ at an attractive price - please inquire**	$995.00	$995.00
19	***MultiQ-3 with WinCon*** • MultiQ-0E • WinCon 3.0	MultiQ: 8x13 bit, ±5V A/D , 8x12 bit ±5V D/A , 3 CLK, 8 DIO ***and*** WinCon Realtime Control of SIMULINK	$2,995.00	$1,950.00
	• Encoder option (-2E)	2 Encoder channels -removable Ics (up to eight encoder channels) 1st chip - $200, 2nd - $150, 3rd - $125, 4th and add. chips:$100 each	$250.00	$200.00 and less
20	***WinCon 5-user License***	5 WinCon 3.0 Licenses - **MORE PACKAGES AVAILABLE**	$4,975.00	$3,980.00

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