Company:		
Address:		
City/State/Zip:	Telephone:	
Print Name:	Title:	
Authorized Signature:		

Please note: Installation price must be included in each unit price

Submit your prices using the form below:

QTY	DESCRIPTION	MANUF- ACTURER	PART/ MODEL NO.	UNIT PRICE	TOTAL PRICE
1	12" x 12" Open Circuit Educational Wind Tunnel (EWT)				
	 Test Section I.D. 11.625" x 11.625" x 24" 				
	 Velocity range ~ 5-145 mph (2 – 65 m/s). Custom Speed ranges 				
	available.				
	- 10 hp (7.5 kW) Electric Motor				
	 Variable Frequency Drive (VFD) 				
	- High-Performance 9 Blade fan				
	 Noise-Reducing Fan Housing 				
	- 9:5:1 Contraction Ratio				
	 Honeycomb Flow Straightener 				
	 Two (2) Turbulence-Reducing Stainless Steel Screens 				
	 Aluminum Test Section with Clear Acrylic Top and Side Windows 				
	- Adjustable Yaw Table				
	 Static Pressure Ring for Noninvasive Airspeed Determination 				
	- Industrial-Grade Casters				
1	2 Axis Traverse System				
	 Motorized Y-Z Traverse system provides wall-to-wall traversing 				
	capability {Y Travel = 12 inch. Z Travel = 12 inch}				
	 Mounts to Ceiling of Test Section (Includes a ceiling plate with 				
	brush sealed slot}				
	- Speed – 1 in/sec				
	 Accuracy in Y and Z Axes = 0.003in over entire travel distance 				
	- Repeatability = 0.0002in over short term				

	- Includes 2 precision stepper motors, stepper drives, and stepper		
	controllers		
	- Traverse software must include:		
	Data Acquisition Platform		
	Traverse Module (Jog Mode, Single-Point Mode, and Test		
	matrix Import Mode)		
	Datalogger and Broadcaster Module (Single-point, Multi-		
	point, Timed Run, and Continuous Sampling included)		
	 Plug and Play USB communication 		
	 Maximum 25 lb. load (sufficient for wake survey analysis) 		
	- Manually Configurable Limit Switches to permit variation of the		
	motion range		
	- Operations and Maintenance Manual		
1	Encoder Package for 2 Axis Traverse		
	 At least 2 Eglo Magnetic Differential Encoders included for 		
	positioning feedback (Excellent Resistance to EMI)		
	- Resolution – 0.001 mm		
	- Accuracy – 0.025 mm		
	- Repeatability = 0.001 mm		
	- At least 2 6-channel, 500 ns digital National Instruments cards		
	 ±5 V to 24 V, differential digital input 		
1	Three-component Force/Moment Balance		
	- Normal Force (N) 25 lb. (111n)		
	- Axial Force (A) 10 lb. (44 N)		
	- Pitching Moment (M) 50 in-lb. (5.6 N-m)		
	- Built-in 90° rotation for reading Side Force and Yawing Moment		
1	Customized Advanced Data Acquisition and control (DAC) System		
	 Nation Instruments cDAQ hardware 		
	- Desktop Computer		
	 High Precision Mensor Digital Barometer and Differential 		
	Pressure Transducer		
	0.03% Full Scale Accuracy		
	NIST Traceable Calibration Certificate		
	- NIST Traceable Dual Relative Humidity and Temperature Probe		
	2% Full Scale Accuracy Humidity Readings		
	± 0.5 degree Celsius Temperature Readings		
	- All connectors, wires, cabling, tubing		

	- Temperature and Relative Humidity readings for density			
	corrections			
	- Tunnel Control Module (Maintains either Fan RPM or Tunnel			
	Velocity)			
	VFD communication via Modbus/TCP			
	Open Loop – Command RPM set-point			
	Closed Loop – Hold Constant Dynamic Pressure			
	Continuous sampling of Static Ring and a Pitot Probe			
	Static Inputs for Temperature, Barometric Pressure, and			
	Relative Humidity			
	- Data Logger Module			
	Single Point, Timed Run, and Continuous data recording			
	10,000 Hz Data Acquisition Rate			
	Configurable Analog Voltage Inputs for Interfacing 3 rd party			
	Instruments			
	- Broadcaster Module			
	Stream all active tunnel variables			
	Shared Variables can be used in other Labview VI's			
	Tunnel Calibration Included			
1	Model Positioning System			
1	- Manual Pitch (a) control			
1	- Manual Yaw (Ψ) control			
1	Airplane Models - 1:48 th scale F-16			
1	- 1:390 th scale 747			
1	Aluminum Pressure Cylinder			
1	- 24 pressure Taps Pitot-static Probe			
1				
1	- Mounting Adapter and pressure tubing included			
1	Drag Model Set (5pc)			
1	- Sphere, Forward Cup, Backward Cup, Flat Plate, Teardrop			
1	Aluminum Pressure Wing			
	- Clark Y-14 airfoil			
1	- 18 pressure taps 24 – Column Manometer Board			
1				
1	Wake Rake			
	- 18 Total – pressure ports			

2	Installation Support			
	- Wiring of Variable Frequency Drive to facility Power			
	- Data-acquisition System Set-up			
	- Basic Overview of Tunnel and Accessories			
1	Shipping and Handling			
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