

# AM02 - Texas A&M University

P.O. Date: 9/9/2016

## Purchase Order

Purchase Order Number

AM02-17-P031539

SHOW THIS NUMBER ON ALL PACKAGES, INVOICES AND SHIPPING PAPERS.

VENDOR

Vendor Number: 00065557  
 AutonomouStuff LLC

306 Erie Ave  
 Morton, IL 615509600

SHIPPING TO

MECHANICAL ENGINEERING DEPT.  
 Attn: Departement Contact KELLI MOORE at (979)845-2546; krmoore@tamu.edu  
 ENGINEERING/PHYSICS BLDG.  
 101  
 3123 TAMU  
 COLLEGE STATION, TX 778433123  
 US  
 Email: meen-accountspayable@tamu.edu  
 Phone: (979) 845-6347

BILL TO

ATTN: FMO Accounts Payable  
 750 Agronomy Road - Suite 3101  
 6000 TAMU  
 Attn: Email invoices to invoices@tamu.edu  
 Attn: Do not mail invoice if sending via email  
 College Station, TX 778436000  
 USA  
 Email: invoices@tamu.edu  
 Phone: (979) 845-8362

INVOICING VENDOR SHALL SUBMIT AN ITEMIZED INVOICE SHOWING PURCHASE ORDER NUMBER. IF YOUR INVOICE IS NOT PROCESSED AS INSTRUCTED, PAYMENT MAY BE DELAYED.

<p><b>Please login to Buy A&amp;M to retrieve attachments associated with the Purchase Order.</b></p> <p>Solicitation (Bid) No.:</p>	<p>Payment Terms: Net 30                  Shipping Terms: FOB Origin                  Freight Terms: Freight Prepaid and Add                  Delivery Calendar Day(s) A.R.O.: 0</p>
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Item # 29

Reference Quote: 770626  
 Please submit invoice for 50% to Department Contact and then balance of 50% will be billed to Department Contact also for Net 30 after receipt of invoice and acceptance of product.

Item # 1  
 Class-Item 911-30

ACE-MKZ-ADAS-KIT  
 Lincoln MKZ ADAS Development Vehicle Kit  
 Kit includes the following features:  
 ? dSpace interface block set if dSpace is used for by-wire master controller  
 ? USB-CAN converter if dSpace is not used, IE ROS for by-wire master controller  
 ? Power distribution panel. This panel controls power to up to 12 sensors/ loads/CPUS  
 ? Touch panel HMI for seeing what is on/off, overriding what?s on/off, etc. (smart switch board).  
 ? Manual switch board, designed for MKZ console, push-button momentary switches with LEDs for status outputs.  
 ? Electronic POD rack that contains the electronics including the supplied PDP, inverter and any customer supplied components( dSpace mbox, Oxford, other CPUS)  
 ? Instrumentation plate (aluminum, black powder coat), along with POD rack rail system and vehicle mounting brackets.  
 ? 600 watt trueSine 12VDC-120VAC inverter for powering

laptops, remote control of inverter via PDP  
 ? Wire harness interfacing 2 by-wire controllers, HMI, switch panel, and PDP.  
 ? Brake/throttle interface controller, interface harness and mounting bracket.  
 ? Steering/shift/network bridge interface controller, interface harness and mounting bracket.  
 ? Xbox controller used for test/demonstration purposes of by-wire control.  
 ? Installation and training  
 Convenience Features:  
 ? Two 12v Monitors \*mounted to the headrests of the front seats  
 ? Convenience ethernet ports \*mounted near the front passenger and in the center console facing backwards  
 ? Ethernet switch \*mounted in the trunk rack  
 ? HDMI video out port (located near the passenger front seat)  
 ? Power monitoring for individual channels  
 ? Estop button  
 \*Compatible with PolySync  
 ? AutonomouStuff suggests the specific Lincoln MKZ model and passes through the cost of the vehicle.  
 ? Purchase order based on this quote will not be accepted without signed copy of the following platform agreement: <http://www.autonomoustuff.com/platform-agreement>  
 ? 50% prepayment due within 2 business days of purchase order, remaining 50% due upon receipt of final invoice.  
 ? This Quote does not include any sales tax, registration or title transfer fees. Any such taxes or fees (dependent on final destination of the vehicle) will be invoiced in addition to this quote. Sales tax to be paid to dealer upon receipt of buyer's order.

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 2  
 Class-Item 911-30

DAT-MKZ-BY-WIRE-MA  
 Dataspeed (DAT-MKZ-BY-WIRE-MA) Yearly maintenance to cover all hardware and software upgrades to electronics and phone support

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 3  
 Class-Item 911-30

AUT-MKZ-RACK-FRONT  
 AutonomouStuff (AUT-MKZ-RACK-FRONT) Pre-Installed front bumper rack for Lincoln MKZ to hold sensors

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 4  
 Class-Item 911-30

AUT-MKZ-RACK-REAR  
 AutonomouStuff (AUT-MKZ-RACK-REAR) Pre-Installed rear bumper rack for Lincoln MKZ to hold sensors

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 5  
 Class-Item 911-30

AUT-RACK-ROOF  
 AutonomouStuff (AUT-ROOF-RACK)  
 Custom 80/20 rack pre-installed on roof for mounting sensors and R&D development. Includes:  
 \*Includes all hardware and labor.  
 \*\*Must be pre-installed at AutonomouStuff, Morton, IL facility.

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 6  
 Class-Item 911-30

AUT-MKZ-CONDUIT  
 AutonomouStuff (AUT-MKZ-CONDUIT) Underbody conduit for Lincoln MKZ sensor cables.  
 Includes:  
 Runs to front of car  
 Runs to rear of car  
 2 junction boxes on front  
 2 junction boxes on rear  
 \*Includes all hardware and labor.  
 Must be installed at AutonomouStuff, Morton, IL facility.

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 7  
 Class-Item 911-30

AUT-8020-BKT  
 AutonomouStuff (AUT-8020-BKT) 8020 Bracket to be used with Ibeo Lidar and Delphi Radar

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
4.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 8  
 Class-Item 911-30

DEL-ESR-2.5-24VDC  
 Delphi ESR 2.5 (24VDC) L2C0051TR Electronically Scanning Radar Engineering Sample. Integrated 3-Axis accelerometer (longitudinal / lateral / vertical accelerations) Simultaneous mid- and long-range measurement modes detect moving vehicles, stationary vehicles, and pedestrians Mid range: 60 meters and has a 90-degree field-of-view, Long range: projects 174 meters and provides a 20- degree field-of-view. Includes: mating connector, USB flash drive with startup guide, DV visualization software and supporting documentation.  
 Harmonized Code: 8526.10.0070  
 Country of Origin: USA

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 9  
 Class-Item 911-30

AUT-CBL-ESR-2.5-24VDC-4.5M  
 AutonomouStuff (CBL-ESR-2.5-24VDC-4.5M) Delphi ESR 2.5 24VDC cable, 4.5m. Breakout cable, 22ga unshielded CAN connection, 28ga shielded USB connection (TCP over USB), ESR connector to tinned and flagged bare wires.  
 Harmonized Code: 8544.30.0000  
 Country of Origin: USA

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 10  
 Class-Item 911-30

KVS-00685-0  
 Kvaser (00685-0) Leaf Light HS v2 - single CAN channel interface using USB 2.0. 8000 messages/sec., galvanic isolation, 70ma, free software and support. Free Linux drivers  
 Harmonized Code: 8542.31.00.00  
 Country of Origin: Sweden

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 11  
 Class-Item 911-30

AUT-BKT-ESR  
 AutonomouStuff (SLD9008) ESR Mounting Bracket  
 Harmonized Code: 7326.90.8588  
 Country of Origin: USA

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00	██████	EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	██████

Item # 12  
Class-Item 911-30

DRK-12-24-ADP  
DROK (090183) Waterproof DC Synchronous Boost Converter  
Regulator DC-DC 9-24V 12V to 24V 5A/120W Step-up Power  
Supply Circuit Module Adapter with Aluminum Shell

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00	██████	EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	██████

Item # 13  
Class-Item 911-30

PTG-BFLY-PGE-20E4C-CS  
Point Grey (BFLY-PGE-20E4C-CS) Blackfly 2.0 MP Color  
GigE PoE, 1600 x 1200 at 50 FPS, e2v EV76C570 CMOS,  
Global shutter, Color, CS-mount (5 mm C-mount adapter not  
included)  
Harmonized Code: 8525.80.40  
Country of Origin: Canada

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00	██████	EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	██████

Item # 14  
Class-Item 911-30

PTG-ACC-01-3010  
Point Grey (ACC-01-3010) 6 pins, 4.5m GPIO Cable, Hirose  
HR10 Circular Connector  
Harmonized Code: 8529.90.9900  
Country of Origin: Canada

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00	██████	EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	██████

Item # 15  
Class-Item 911-30

EDM-33-303-LENS  
Edmund Optics (33-303) 12mm UC Series Fixed Focal Length  
Lens. 1/1.8" Maximum Camera Sensor Format, 1/2.5"  
Optimized Sensor Format, 100mm - 8 Working Distance, f/1.8 -  
f/11 Aperture, 30mm Outer Diameter, 35.2mm length, M25.5 x  
0.5 Filter Thread, C-Mount

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 16  
Class-Item 911-30

EDM-CS-MOUNT  
Edmund Optics (03-618) 5mm Spacer to convert CS-Mount  
Cameras to C-Mount

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 17  
Class-Item 911-30

VEL-VLP-16  
Velodyne (VLP-16) LiDAR Puck. Real-time, 360°, 3D distance  
and calibrated reflectivity measurements. Range up to 100  
meters. Supports 16 channels, ~300,000 points/sec, a 360°  
horizontal field of view and a 30° vertical field of view, with  
±15° up and down. <10W power consumption, 830 grams,  
100mm x 65mm.  
Harmonized Code: 8526.91.00  
Country of Origin: USA

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
2.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 18  
Class-Item 911-30

GAR-GPS-VEL  
Garmin (010-00321-36) GPS 18 LVC, Programmed, 6-pin  
connector  
Harmonized Code: 8543.70.90  
Country of Origin: USA

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
2.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 19  
Class-Item 911-30

XNS-MTi-G-710-2A5G4  
Xsens (MTi-G-710-2A5G4) MTi-G-710-GPS/AHRS RS232,  
USB

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 20  
Class-Item 911-30

XNS-CA-USB-MTI  
Xsens (CA-USB-MTI) USB Cable MTi, 4-pins, 2.9m, USB.

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 21  
Class-Item 911-30

XNS-ANT-P  
Xsens (ANT-P) Multi-GNSS Antenna

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 22  
Class-Item 911-30

XNS-CASE-MTI-2  
Xsens (CASE-MTI-2) Suitcase MT DK

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 23  
Class-Item 911-30

XNS-CA-MP2-MTI  
Xsens (CA-MP2-MTI) Development Cable.  
Shielded multi-plug cable for MTi 10-series, MTi 100-series,  
MTi-G-700 GPS/INS. 2.9 m, terminated with 9-pins Molex  
header.

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 24  
Class-Item 911-30

AUT-DEV-ECU-LUMINA  
AutonomouStuff (AUT-DEV-ECU-LUMINA) Fanless Computer

167 NISE 3700E2, Support 4th generation Intel® Core? i7, LGA Socket Type Embedded Processor, Intel® Q87 PCH, Support 1 x 2.5" SATA HDD, 1 x DVI-I, 1 x DVI-D, and 1 x HDMI with Independent Display Support, Three Intel® GbE LAN ports; Support WoL, Teaming and PXE, 4 x USB 3.0, 4 x USB 2.0, 1 x RS232 and 2 x RS232/422/485 with auto flow control, 2 x internal Mini-PCIe socket support optional Wi-Fi/3.5G/mSATA/ Fieldbus, 1x External CFast socket and 1 x SIM card socket, Support +9V to 30VDC input; ATX power mode, 2 x PCI or PCIe x4 expansions  
 Harmonized Code: 8471.50.00  
 Country of Origin: USA

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 25  
 Class-Item 911-30

AUT-PWR-ADP-AUTO  
 AutonomouStuff (AUT-PWR-ADP-AUTO) Intelligent DC-DC converter with USB interface. 100watt, Wide range input (6-34V), Programmable output 5-24V, Default output 12V enclosed in 0.8mm steel, black

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 26  
 Class-Item 911-30

KVS-00683-6  
 Kvaser (00683-6) Kvaser PCIEcan 4xHS

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 27  
 Class-Item 911-30

ENG-SVC-CUSTOMER-HRLY  
 Integration and calibration of the following sensors:  
 1x Delphi ESR  
 1x Mobileye  
 1x Point Grey Camera  
 2x VLP-16  
 1x NovAtel Kit  
 1x Lumina ECU  
 1x PolySync

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
60.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

Item # 28  
Class-Item 911-30

TRANSPORTATION  
Transportation Fees

Quantity	Unit Price	UOM	Discount %	Total Discount Amt.	Tax Rate	Tax Amount	Freight	Total Cost
1.00		EA	0.00 %	\$ 0.00		\$ 0.00	\$ 0.00	

TAX: \$ 0.00  
FREIGHT: \$ 0.00  
TOTAL:

ANY EXCEPTIONS TO PRICING OR DESCRIPTION CONTAINED HEREIN MUST BE APPROVED BY THE TEXAS A&M UNIVERSITY AGENCY PROCUREMENT OFFICE PRIOR TO SHIPPING.

The State of Texas is Exempt from all Federal Excise Taxes.  
State and City Sales Tax Exemption Certificate: The A&M System claims an exemption from taxes under Chapter 20, Title 122A Revised Civil Statutes of Texas for purchase of tangible personal property described in this order, purchased from Vendor listed above as this property is being secured for the exclusive use of the State of Texas.

APPROVED

By: Angel Constancio  
Email: agc@tamu.edu  
Phone#: (979) 845-3847

BUYER

FAILURE TO DELIVER: If the Vendor fails to deliver these supplies by the promised delivery date or a reasonable time thereafter, without giving acceptable reasons for delay, or if supplies are rejected for failure to meet specifications, the State reserves the right to purchase specified supplies and equipment elsewhere, and charge the increase in price and cost of handling to the Vendor. No substitution or cancellations permitted without prior approval of The Texas A&M University System.

THE TEXAS A&M UNIVERSITY SYSTEM TERMS AND CONDITIONS APPLY.