MAR ATHANASIUS COLLEGE OF ENGINEERING
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PRINCIPAL

A3-436/01/2025-26/ME Dept. 08.01.2026

GSTIN: 32AABTM6796Q1ZR

NOTICE INVITING QUOTATIONS

Competitive quotations are invited for the purchase of the following items for the Mechanical Engineering Department. The quotations should reach the undersigned on or before 20.01.2026 at 3.00 p.m., in sealed covers super scribed "Quotation for Supply of Collaborative robot Items for ME Department."

All materials should be delivered to the Robotic and Automation Laboratory, M. P. Varghese Block.

1. Collaborative robot

   Made: Universal Robot

   Model: UR12e with following specifications

UR12e General specification		
Payload	12.5 kg (27.5 lbs)	
Reach	1300 mm (51.2 in)	
Degrees of freedom	6 rotating joints	
Programming	12-inch touchscreen with PolyScopeX graphical user interface	
Power consumption (average)		
Maximum power	615 W	
Moderate operating settings	350 W	
Operating temperature range	Ambient temperature: 0-50˚C (32-122˚F)	
Safety functions	17 configurable safety functions	
In compliance with	EN ISO 13849-1 (PLd Category 3), EN ISO 10218-1	
UR12e Robot Arm Performance		
Force sensing,tool flange/torque sensor	**Force, x-y-z**	**Torque, x-y-z**
Range	± 100.0 N	± 10.0 Nm
Precision	± 5.0 N	± 0.2 Nm
Accuracy	± 5.5 N	± 0.5 Nm
Movement		
Max TCP speed	Approx 4 m/s - Optimove , Approx 1m/s - classic(Tool: Approx. 1 m/s / Approx. 39.4 in/s)	
Pose repeatability per ISO 9283	± 0.05 mm	
Axis movement	**Working range**	**Maximum speed**
Base	± 360°	± 180˚/s
Shoulder	± 360°	± 180˚/s

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Elbow	± 160°	± 180°/s
Wrist 1	± 360°	± 360°/s
Wrist 2	± 360°	± 360°/s
Wrist 3	± 360°	± 360°/s
Features		
IP Classification	IP54	
Noise	< 65 dB(A)	
Arm mounting	Any orientation	
I/O Ports at tool flange		
Digital In	2	
Digital Out	2	
Analog In	2	
Power supply voltage	12/24 V	
Power supply	2 A (Dual pin), 1 A (Single pin)	
Physical		
Footprint	Ø190 mm	
Materials	Aluminum, plastic, steel	
Tool flange	M8 8-pin female,EN ISO-9409-1-50-4-M6	
Connector type	M8 8-pin female	
Cable length (robot arm)	6 m (236 in)	
Weight including cable	33.5 kg (73.9 lbs)	
Humidity	≤ 90% RH (non-condensing)	
Teach Pendent		
Features		
IP classification	IP54	
Humidity	≤ 90% RH (non-condensing)	
Display resolution	1280 x 800 pixels	
Physical		
Materials	Plastic	
Teach pendant size (W x H x D)	300 mm x 231 mm x 50 mm (11.8 in x 9.1 in x 1.97 in)	
Weight	1.6 kg (3.5 lbs) including 1 m of teach pendant cable	
Cable length	4.5 m (177.17 in)	
Control Box		
Features		
IP classification	IP44	
Humidity	≤ 90% RH (non-condensing)	
I/O Ports		
Digital In	16	
Digital Out	16	
Analog In	2	
Analog Out	2	
Quadrature digital inputs	4	
I/O Power Supply	24V, 2A	

Industrial protocols	Modbus TCP (Client/Server), Ethernet/IP Adapter,PROFINET device, PROFIsafe,ROS/ROS2
Hardware interfaces	Ethernet 1 Gb/s,USB 2.0 USB 3.0,Mini DisplayPort
Power Source	100-240 VAC, 47-440 Hz
Physical	
Control Box Size (W x H x D)	460 mm x 449 mm x 254 mm(18.2 in x 17.6 in x 10 in)
Weight	12 kg (26.5 lbs)
Materials	Powder-coated steel

2. Cobot gripper

Made On Robot, Model: RG6, with additional Integrated software and the following specifications

Payload Force	6 kg
Total stroke	160 mm
Finger position resolution	0.1 mm
Repetition accuracy	0.2 mm
Gripping force	120 N
Motor	Integrated, electric BLDC

3. URToolCableKit12e
4. Quick Changer - Robot side for Universal Robot UR12e
5. Two days of hands-on training of robot for 3 people

Payment Terms:- 100% payment will be made after receipt of materials in good condition at our site and after demonstration by you and verification and testing by us.

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