

S.No	Description	Qty (Nos.)
1.	<p><b>Orbbec Astra Pro</b>  Manufacturer: Orbbec  Model No: Orbbec Astra Pro  Specifications:  <ul style="list-style-type: none"> <li>General purpose 3D camera</li> <li>Fully compatible with OpenNI</li> <li>Range: 0.4m to 8m</li> <li>Depth Image Size 720p @ 30 fps</li> <li>Field of View: 60° horizontal X 49.5° vertical</li> </ul> Accessories Required with 3D Camera:  <ul style="list-style-type: none"> <li>Necessary cables including power and USB cable are required.</li> </ul> </p>	03
2.	<p><b>Mini ITX Fanless Single Board Industrial Computer</b>  Manufacturer: Jetway Information  Model No: JNF797-Q370 Series  Part Number: HBJC501F797WQ37-B (with WIFI)  Specifications:  <ul style="list-style-type: none"> <li>JNF797-Q370, i7, 8<sup>th</sup> Gen, 8GB RAM, 250GB M.2 SSD</li> <li>OS: Ubuntu 16.04. (Should be pre-installed)</li> <li>Including WIFI expansion module</li> <li>Enclosed in protective industrial box</li> <li>GPIO are required</li> <li>2 X USB 2.0 are required</li> <li>Standard Rear panel I/O: <ul style="list-style-type: none"> <li>4 X USB 3.1 ports (Gen. 2)</li> <li>1 X HDMI (Max. Resolution: 4096 x 2160@30Hz)</li> <li>2 X DP (Max. Resolution: 4096 x 2304@60Hz)</li> <li>2 X RJ45</li> <li>1 X Audio (Line-in, Line-out, MIC)</li> <li>2 X COM (RS232/422/485)</li> <li>2 X Antenna holes (HBJC501F797WQ37-B only),</li> <li>1 X DC-in jack Front</li> </ul> </li> <li>Standard Front panel I/O: <ul style="list-style-type: none"> <li>1 X Power button, 1 X HDD LED</li> <li>2 X USB 2.0 ports</li> </ul> </li> </ul> Accessories Required with SBC: <ul style="list-style-type: none"> <li>L01AS056-F (Adapter 19V/6.32A 120W)</li> <li>Power cord</li> <li>HCS5XXMWM01B-F (JC5XX Wall mount / Black color )</li> <li>LCSCBHC3XX-F (Screw pack)</li> <li>J05-ANT-AN2400-F (Antenna2G4 -2dBi R-AN2400-5701RS)</li> <li>HCS3XXDINRAILPS-F (Din Rail Clip)</li> </ul> </p>	02
3.	<p><b>DELL Embedded Box PC (Industrial grade)</b>  Manufacturer: DELL  Model No: DELL 3000  Specifications:  <ul style="list-style-type: none"> <li>Processor: Intel Atom E3845.</li> <li>OS: Factory installed Ubuntu desktop 16.04.</li> <li>Memory: DDR3L 8 GB,</li> <li>Storage: SSD 256 GB,</li> <li>I/O: Dual Gigabit Ethernet: 2 x RJ-45.</li> <li>USB: 4 x USB2, 1 x USB3.</li> <li>Serial interfaces: 2 x RS-232/485; 1 x RS-232/422 via multifunction port;</li> <li>GPIO: 12 bit (via multi-function port).</li> <li>Wireless: Wi-Fi IEEE 802.11n +Bluetooth LE. CAN bus card.</li> <li>WLAN antenna + cable.</li> <li>7 in 1 multifunction port + cable.</li> <li>Wall mount Bracket.</li> </ul> </p>	01

P: 2/4

	<b>Accessories Required with SBC:</b> <ul style="list-style-type: none"> <li>• Wall mounting kit.</li> <li>• DIN Rail Mounting kit.</li> <li>• WLAN Antenna + Cable</li> <li>• Wifi</li> <li>• 7-in-1 cable for multi-function port cable (for I/O</li> <li>• connections to 1 x RS-232/422 serial, 12-bit GPIO,</li> <li>• Mic-in, line-in, line-out, PS/2 mouse, PS/2 keyboard)</li> </ul>	
4.	<b>PTZ Camera</b> <b>Manufacturer:</b> Axis <b>Product No:</b> AXIS M5525-E PTZ Network Camera <b>Specifications:</b> <ul style="list-style-type: none"> <li>• 10x Optical zoom</li> <li>• 360° pan</li> <li>• 90° tilt</li> <li>• Two-way audio</li> </ul> <b>Accessories Required with PTZ Camera:</b> <ul style="list-style-type: none"> <li>• AXIS T91L61 Wall-and-pole Mount Part # 5801-721</li> <li>• AXIS Steel Straps TX30 570mm Part # 01472-001</li> </ul>	03
5.	<b>Robotiq E-Pick with 4 cup Suction System for UR3 Arm</b> <b>Manufacturer:</b> Robotiq <b>Product Name:</b> E-Pick Robotiq Suction Gripper(customizable up to 4 cups) for UR3 <b>Specifications:</b> <ul style="list-style-type: none"> <li>• Compatible with Universal Robot 3 (UR3) Arm</li> <li>• Easily Customizable to use with 1 to 4 suction cup kit.</li> </ul> <b>Accessories Required with E-Pick Gripper:</b> <ul style="list-style-type: none"> <li>• All required interface cables are required.</li> <li>• All necessary components which include coupling and screws for its mounting on UR3 robotic arm are required.</li> <li>• Spares (if required during its use within 1 year) must be provided besides standard E-gripper kit.</li> </ul>	01
6.	<b>High Resolution 3D Camera for Vision Integration</b> <b>Manufacturer:</b> IFM Electronic <b>Order Number:</b> O3D303 <b>Specifications:</b> <ul style="list-style-type: none"> <li>• Provides Distance image &amp; Grey Scale Image</li> <li>• Industrial Compatible Housing is required.</li> <li>• IP-65</li> <li>• Gorilla Glass</li> <li>• Angle of Aperture: 60° x 45°</li> <li>• Maximum Field of View Size: 5040 x 3480</li> </ul>	01
	<b>Accessories Required with 3D Camera:</b> <ul style="list-style-type: none"> <li>• All required interface/power cables are required.</li> <li>• All necessary components which include mounting set and Industrial compatible housing are required.</li> <li>• URCap (for integration with Universal Robot Arm) Plugin is required.</li> </ul>	
7.	<b>4-Port USB 3.0 Ultra Slim Data Hub</b> <b>Brand:</b> Anker (Preferably) <b>Specifications:</b> <ul style="list-style-type: none"> <li>• Ports: 4 Nos.</li> <li>• USB Type: 3.0</li> <li>• With Extended Cable Attached</li> </ul>	03

P: 4/4

8.	<u>Arduino Starter Kit</u> Manufacturer: Arduino Product Code: Arduino Uno DIP V3 Arduino Starter Kit K000007 RS Stock No: 761-7355 Specifications: <ul style="list-style-type: none"> <li>Includes: USB cable, Breadboard Wood base, 9V battery snap, 70 x hard cables, 2 x flexible cables, 6 x photoresistors, 2 x photocouplers, 3 x trimmer d10KOhm, 10 x pushbuttons Sensors: 1 x temperature, 1 x tilt, 1 x LCD (16x2i), 29 x LEDs (RGB, white, red, green, yellow, blue), 1 x CC motor 6/9 V, 1 x servomotor, 1 x piezo, 1 x H-bridge, 5 x BC547s Transistors, 2 x IRF520s MOSFETs, Capacitors: 5 x 100nF, 3 x 100uF, 5 x 100pF, 5 x 1N4007 diodes, 3 x transparent jellies, 1 x male strip connector, 55 x Resistors: various resistances</li> </ul>	02
9.	<u>Arduino UNO Enclosure Case</u> Brand: Hammond RS Code: 193-6816	02
10.	<u>USB to I<sup>2</sup>C Module</u> Brand: DevanTech (Preferably) Product Code: USB-I <sup>2</sup> C Accessories Required: <ul style="list-style-type: none"> <li>Compatible USB Cable is required for interface with PC</li> </ul>	04
11.	<u>Sabertooth Motor Driver</u> Manufacturer: Dimension Engineering Product Code: Sabertooth 2X60 Specifications: <ul style="list-style-type: none"> <li>Sabertooth Dual 60A 6V-30V Regenerative Motor Driver</li> </ul> Accessories Required: <ul style="list-style-type: none"> <li>USB interface Cable is required</li> </ul>	02