Detailed Specifications

Robotic Arm - SCORA-ER 4u

Mechanical structure
Vertically articulated

Weight
10.8 kg 23.8 lb

Operating radius
610 mm 24"

Maximum Payload
With reduced acceleration: 2.5 Kg 5.5 lbs
Full speed: 1 Kg 2.2 lbs
DC servo gripper, with optical encoder, parallel finger motion

End Effectors
Measurement of object’s size by means of Gripper sensor and software.

Max. gripper opening
Without pads 75 mm 3"
With pads 65 mm 2.6"

Repeatability
± 0.18 mm 0.007"
at TCP (tip of gripper)

Position Feedback
Optical encoders on each axis

Homing
Fixed position on each axis found by means of micro switches

Actuators
12 VDC servo motors

Transmission
Gears, timing belts, lead screw

Ambient operating temperature
2° – 40°C 36° – 104°F

Axes Specifications

Number of Axes
5 rotational axes and gripper

Axis Movement
<table>
<thead>
<tr>
<th>Type</th>
<th>Range</th>
<th>Effective Speed</th>
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</thead>
<tbody>
<tr>
<td>Axis 1: Base rotation</td>
<td>310°</td>
<td>20°/sec</td>
</tr>
<tr>
<td>Axis 2: Shoulder rotation</td>
<td>158°</td>
<td>26.3°/sec</td>
</tr>
<tr>
<td>Axis 3: Elbow rotation</td>
<td>260°</td>
<td>26.3°/sec</td>
</tr>
<tr>
<td>Axis 4: Wrist pitch</td>
<td>260°</td>
<td>83°/sec</td>
</tr>
<tr>
<td>Axis 5: Wrist roll</td>
<td>Unlimited mechanically ±570° electrically 106°/sec</td>
<td></td>
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</tbody>
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