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SCORBOT-ER 2pc

a new member of the SCORBOT family

Eshed Robotec, the world leading educational robotic company, is proud to introduce the SCORBOT-ER 2pc to its robotic line.

Combining its vast experience in manufacturing, educational and industrial robots with its unique comprehensive curricular approach, enables Eshed Robotec to provide customers with a reliable robot for the most cost affordable price!

Together with the SCORBASE robotics language – the most popular robotics language in schools worldwide – the SCORBOT-ER 2pc is simply the best in its range!

As with its other products, SCORBOT-ER 2pc provides a powerful and safe didactic environment.

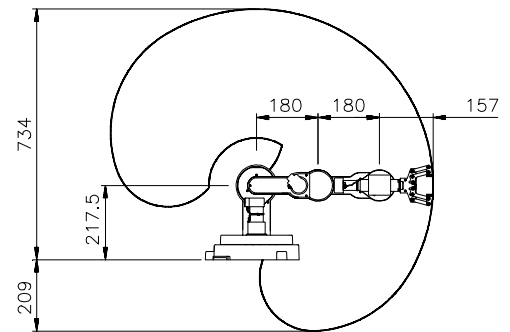
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ROBOTEC**

SCORBOT-ER 2pc Technical Specifications

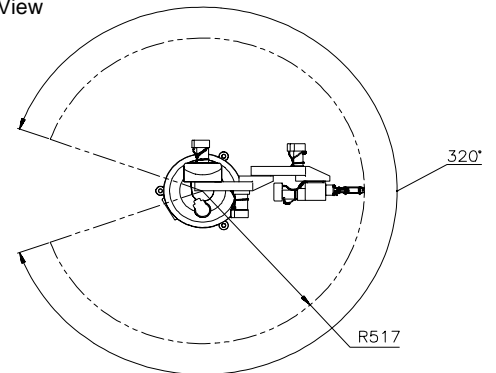
Mechanical Arm

Number of axes	5 plus gripper
Construction	Vertical articulated, Fully enclosed arm
Operating radius	517mm (20.35") at end of gripper
Axis range:	
Axis 1: Base rotation	320°
Axis 2: Lower arm	+30° / -120°
Axis 3: Upper arm	+80° / -107°
Axis 4: Pitch	+120° / -120°
Axis 5: Roll	400°
Speed	10 speeds
Gripper opening	55mm (2.16")
Load capacity	350g (0.77lb)
Repeatability	± 1 mm (±0.04")
Motors	5 DC servomotors, DC motor for gripper
Transmission	Spur steel gears
Feedback	Optical encoders
Arm weight	7.6Kg (16.7Lbs)
Ambient operating temp	2°C - 40°C (36° - 104°F)

Side View



Top View



Controller – PC Interface Card

Type	Standard ISA BUS, real-time, PWM
CPU	8 x microprocessor PIC17 & C42, one for each axis
Communications to power box	RS232, D62 connector
Number of servo axes	8 axes: 5 robot arm, 1 gripper, 2 accessories
Programming language	SCORBASE for Windows – a user friendly conversational command environment. Optional: RoboCell, a 3D solid modeling simulation software for the robot and its environment
Coordinates system	XYZ and robot joints with absolute and relative positions
Motion control	Joint/linear/circular/spline, 1ms loop control, PID parameters Motion limit parameters, Software controlled acceleration/deceleration
Safety features	Impact protection, thermal protection, boundary protection
Accessories	Belt conveyor, rotary table, 1M linear slidebase, 1.5M linear slidebase XY table, laboratory experiments table, and more....

Controller – Power Box and I/O Interface

Power Requirement	110/220VAC 50/60Hz, 180W maximum
Weight	7Kg (15.5Lbs)
Dimensions	315mm L x 223.5mm W x 117mm H (12.4" x 8.8" x 4.6")
Number of servo axes	8 axes: 5 robot arm, 1 gripper, 2 accessories
Inputs/Outputs	8 Digital inputs with LED display (PNP) 8 Digital outputs with LED display (4 relays, 4 open collectors, NPN) 4 Analog inputs 0V-10VDC, 8 bit 2 Analog outputs 0V-10VDC, 8 bit
Motion control	PWM 15 KHz
Safety features	Emergency brake switch on the front panel (with red LED), * disconnect power to motors and I/O * reset the microprocessor (for safety) Support for connections of external emergency device Indicator LEDs for power and motors

Teach Pendant - optional

A hand held device combining high tech with efficient, user friendly robot operation, enabling direct control of the robot in a manner similar to that used with industrial robots. It provides control of each axis separately, for teaching positions in both joints and XYZ coordinates. It can HOME the robot, run or abort programs stored in the PC. 25 multi-function keys, 4 line, 20 character digital LCD display. Safety features include emergency stop mushroom push-button, deadman's switch, auto/teach mode selector switch.