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Dexter ER1 Robotic Arm is a 5 Axis robotic Arm + Servo Gripper. It uses 4 metal gear servo motors with 15Kg/cm torque and two servo motors with 7Kg/cm torque. Robot Arm has 5 degrees of freedom which includes: Base rotation, Shoulder rotation, Elbow rotation, Wrist pitch and roll. Robotic arm comes preassembled along with versatile servo motor controller which can simultaneously control 32 servo motors with velocity trajectory profile at the same time, an advanced GUI with Interface for robotic ARM motion profiling, and 5V-25A, 12V-5A SMPS.

The Robotic arm is made up of high grade machined / injection moulded Aluminium alloy. The arm uses 4 x NRS-995 17Kg/cm dual bearing, metal gear servo motors and light weight 2 x micro servo motors.

Robotic Arm comes with 32 channel universal servo motor controller board and GUI. Servo control board can control 32 servo motors simultaneously. Using the GUI, all axis of the arm can be controlled. Using this GUI arm can also be taught sequences of motion using mouse. Robotic Arm is interfaced with the PC using USB port. Arm can be programmed to execute different types of motion profiles using any of the 5 servo channels simultaneously.

**Note:** This product has lead time of 6 weeks after order is placed

## Specifications

Mechanical Structure	Vertical articulated
Number of Axes	5 axes plus servo gripper
Axis Movement	
Axis 1: Base rotation	
Axis 2: Shoulder rotation	
Axis 3: Elbow rotation	
Axis 4: Wrist pitch	
Axis 5: Wrist roll	180°
180°	
180°	
180°	
180°	
Maximum Operating Radius	300mm
End Effector	DC servo gripper with Parallel finger motion
Maximum Gripper Opening	50mm
Hard Home	Yes
Feedback	Servo
Actuators	5VDC servo motors
Motor Capacity (axes 1-4)	
Motor Capacity (axes 5)	
Motor Capacity (gripper)	7Kg/cm
7Kg/cm	
7Kg/cm	
Maximum Payload	200gms (including gripper)
Weight	1.250Kgs
Ambient Operating conditions	21-40°C (36°-104°F) 10% to 90% relative humidity
Power	5V-10Amp; 12V-2Amp (SMPS)

## Structure

Dexter ER1 Robotic Arm is a vertical articulated robot, with five revolute joints. This design permits the end effectors to be positioned and oriented arbitrarily within a large work space.



Axis No.	End Joint Name	End Motion	Motor No.
1	Base	Rotational	1
2	Shoulder	Rotational	2
3	Elbow	Rotational	3
4	Gripper	Rotational	4
5	Gripper	Rotational	5
6	Gripper	Rotational	6



[Click here to see video of Dexter ER1 Robotic Arm](#)