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Dexter ER-2 Heavy Duty Robotic Arm with Controller and Accessories is fully assembled and ready to use Robotic Arm. Robotic arm comes preassembled along with the Servo control card, Servo motion profile generator GUI, and Flex sheets with polar and rectangular coordinate systems for the robotic arm.

Dexter ER-2 Heavy Duty Robotic Arm is a 5 Axis robotic Arm + Servo Gripper. It uses seven 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. Out of which Shoulder rotation, Elbow rotation, Wrist pitch has two 15Kg/cm torque servo motors in parallel for enhancing the performance of the robotic arm.

Servo motion profile generator GUI is used for quickly generating servo motion profile for the robot. GUI can access each servo motor individually in real-time. We can select individual servo motor's velocity. We can also generate, edit and play motion sequence (motion profile) using GUI.

Technical specification:

Mechanical Structure	Vertical articulated
Number of Axes	5 axes plus servo gripper
Axis Movement	
Axis 1: Base rotation	180°
Axis 2: Shoulder rotation	180°
Axis 3: Elbow rotation	180°
Axis 4: Wrist pitch	180°
Axis 5: Wrist roll	180°
Maximum Operating Radius	320mm
End Effector	DC servo motor based gripper with Parallel finger motion
Maximum Gripper Opening	55mm
Hard Home	Yes

Actuators

5VDC servo motors

Motor Capacity (axes 1-4)

15Kg/cm

Motor Capacity (axes 5)	7Kg/cm
Motor Capacity (gripper)	7Kg/cm
Total number of Servo Motors	9
Maximum Payload	50gms
Weight	1.5Kg
Ambient Operating conditions	20-40° C (36°-104° F) 10% to 90% relative humidity

Important:

- Before using the robotic arm ensure that the robotic arm is kept in an area where lots of free space is available.
- Before use mount the robotic arm using screws / nuts and bolts on the table.
- Read the product manual carefully before using Robotic Arm
- Do not keep arm in stretched position for more than few minutes at a stretch, else servo motors will get damaged because of overheating.

Kit contains:

Dexter ER-2 Heavy Duty Robotic Arm

Servo control card

5V-25A, 12V-5A SMPS

Two flex sheets with polar and rectangular coordinate systems

Documentation CD