

# EPSON Micro PowerDrive

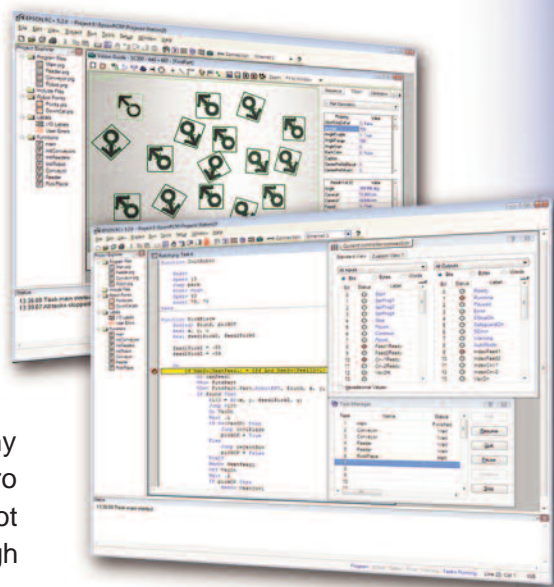
EPSON®  
EXCEED YOUR VISION

## RC180 Controller

- Low Cost AND High Performance
- Industry Leading Ease of Use with EPSON RC+ Software
- Fast Robot Cycle and Program Execution Times
- Compact Size - Small Footprint
- Use as Standalone, PLC Slave or with PC
- PowerDrive Servo System Ensures Maximum Robot Performance
- High Installation Flexibility
- Fully Integrated Options including: Vision Guidance, .NET Connectivity, EtherNet/IP, DeviceNet, Profibus, Expansion I/O and more



The EPSON Micro PowerDrive RC180 controller is a low cost, high performance robot controller that provides the ultimate experience in ease of use, compact size, and reliability at an incredible low cost. At the heart of the Micro PowerDrive is the new EPSON PowerDrive servo technology that provides superior path control, incredibly fast accel/decel times, and tremendous overall motion capabilities in an ultra compact form factor. In addition to all these great features, the RC180 controller also provides our industry leading EPSON RC+ Controls software and lots of fully integrated options. With core performance features superior to many other robot vendors high end controllers, the EPSON Micro PowerDrive RC180 creates a whole new class of robot controllers for customers seeking the best mix of low cost, high performance and small footprint.





# RC180 Controller Specifications

## Hardware Specifications

<b>Mounting Options</b>	Desktop, Wall, Rack, Floor, Ceiling	
<b>CPU</b>	32 bit Ultra Low Voltage Processor	
<b>Robot Manipulator Control</b>	Joint Control	Up to 6 joints simultaneous control (AC Servo)
	Motion Type	CP (Continuous Path) motion, PTP (Point to Point) motion
	Speed/ Accel/ Decel	Fully programmable
<b>Memory</b>	64 MB Flash, 64MB DRAM, 128K SRAM (for backup variables)	
<b>Teaching Method</b>	Remote, Direct, MDI (Manual Data Input)	
<b>Digital I/O</b>	Standard I/O	16 Inputs/ 8 Outputs (Optically Isolated)
	Remote I/O	8 Inputs/ 8 Outputs (may be configured as additional standard I/O)
<b>Communication Interfaces</b>	Ethernet	10/100Base-T Ethernet - High speed connection to 1 or more controllers via network
	USB 1.1 or 2.0	USB port 1 - Direct 1 to 1 high speed connection to 1 controller
		USB port 2 - for USB memory
<b>Power Source</b>	200-240 VAC Single Phase 50/60 Hz	
<b>Environment</b>	Temperature	5-40 deg C
	Humidity	20-80% (no condensation)
	Standards for Environment	RoHS
<b>Safety Standards</b>	CE Compliance, ANSI/RIA 15.06-1999, UL1740 (coming soon)	
<b>Safety Features</b>	Emergency stop switch, Safety door input, Low power mode, Dynamic brake, Encoder cable disconnection error detection, Motor overload detection, Irregular motor torque detection, Motor speed error detection, Positioning overflow, Speed overflow, Servo error detection, CPU irregularity detection, Memory check-sum error detection, Overheat detection at the Motor Driver Module, Relay welding detection, Over-voltage detection, AC power supply voltage reduction detection, Temperature error detection, Fan error detection	
<b>Dimensions (mm)</b>	Base Unit (for SCARA robot)	302(w) x 170.5(d) x 275(h)
	Extension Unit drive (for Six-Axis robot)	75(w) x 130(d) x 275(h)
	Extension Option Unit	55(w) x 136(d) x 240(h)
<b>Weight</b>	For SCARA robot	9.0 kg*
	For Six-axis robot	10.5 kg*
	Option unit	1.0 kg*

## Software Specifications

<b>Programming Language</b>	SPEL+	
<b>PC Requirements</b>	Operating System	Windows XP, Windows Vista or Windows 7
	CPU Speed	850 MHz (or faster)
	Required HDD Space	500MB (minimum)
<b>Multitasking</b>	up to 16 simultaneous tasks	
<b>Error Handling</b>	Error History	Automatic error logging
	User Errors	User defined errors and messages
<b>Languages</b>	English, French, German, Japanese, Chinese	
<b>Source Code Editor</b>	Color coded with auto syntax assist, code indent, and built-in EPSON SmartSense™ technology	
<b>Debugger</b>	Source level debugger with single step, breakpoints, watch variables, and built-in EPSON SmartSense™ technology	
<b>SPEL+ Language</b>	Powerful, easy to learn structured language with features such as: functions, parameter passing, variable types, long variable names, event traps, error handling and much more	
<b>RC+ Development Environment (EPSON RC+ 5.0)</b>	Project based development environment with advanced ease of use features such as: <ul style="list-style-type: none"> <li>• Project Explorer for easy access to application files</li> <li>• Point and click configuration wizards</li> <li>• Point file spreadsheets for editing points</li> <li>• Operator Window for easy production use</li> <li>• Run Window for fast development</li> <li>• Integrated help system is always just a click away</li> <li>• Robot Manager for jogging, teaching points, and configuring robot parameters</li> <li>• I/O Monitor and I/O Label Editor allow easy setup and viewing of I/O status</li> <li>• Task Manager provides debugging/monitoring dialog for all actively running tasks</li> </ul>	
<b>PLC Connection</b>	Easy to use controller as PLC slave through DeviceNet, Profibus, EtherNet/IP or Remote I/O connection	
<b>Available Robots</b>	RS-Series, G-Series, C-Series, S-Series and Pro Six	

## Options

- Expansion I/O (32 Inputs/ 32 Outputs) up to 4 boards
- RS232-C board (up to 8 ports available with 2 option boards)
- ECP Software Option (External Control Point motion)
- Operator Panel (OP1)
- Fieldbus boards (EtherNet/IP, DeviceNet, Profibus, CC-Link)
- VB Guide (Microsoft .Net Communication Module)
- Teach Pendant (TP1)

\* Weight of the Controller

## EPSON Robots

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