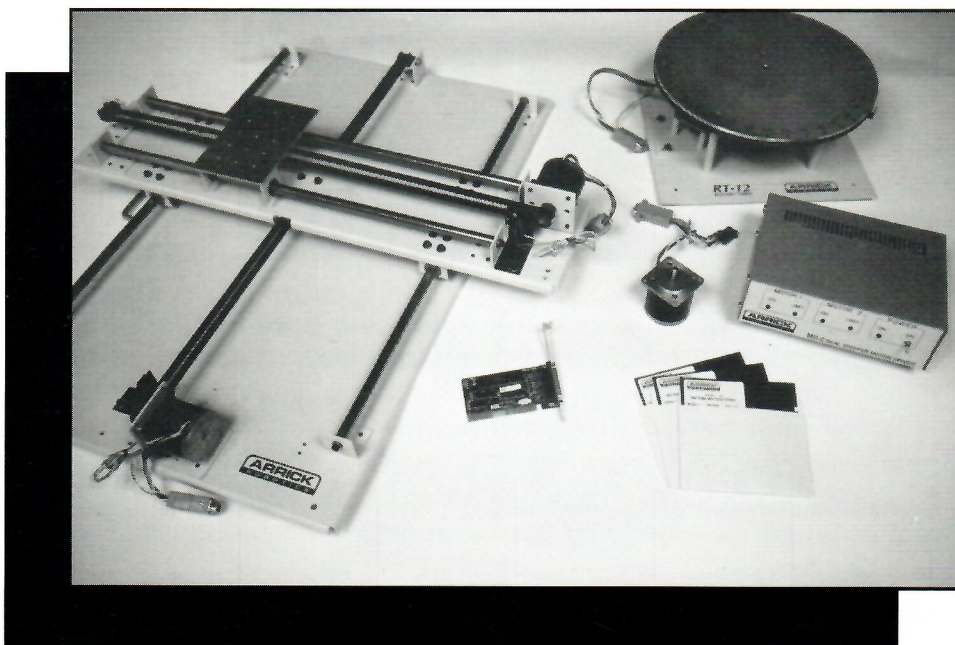# affordable
utomation

Photographs by Scott Fox

Our line of affordable automation products makes it easy to tackle projects that would otherwise require substantial engineering. Science and industry can use these products to minimize engineering and shorten development cycles on projects requiring intelligent motion. Universities and vocational schools can use them to teach motion control theory or simulate plant automation.

Our products are completely compatible with each other. Our motor driver can control our XY and rotary positioning tables, the rotary table can be attached to the XY table, and the X-18 linear positioning table can mount to the rotary table. We're always adding new products. Contact us by mail, phone, or fax to insure future mailings.

ARRICK
R O B O T I C S

Phone: (817) 571-4528   FAX: (817) 571-2317
P. O. Box 1574 • Hurst, Texas 76053

TAKE A LOOK ➡

MD-2

DUAL STEPPER MOTOR DRIVER PACKAGE

The MD-2 dual stepper motor driver package includes everything needed to operate stepper motors from an IBM style personal computer. Don't waste valuable engineering time designing drive electronics, writing software and locating motor suppliers for your custom motion control applications — the MD-2 has it all! Just connect the driver to your parallel printer port, plug in the motors, and run the software — it's that simple. The size 23 stepper motors can attach to our XY positioning table or other devices having similar mounting. Switches are provided on each motor which can be used to detect home position, motion limit or used for general purpose input. Use our motion control software which allows you to change all motor parameters and create programmed positioning sequences, or write your own in BASIC or C with our easy to use subroutines. The MD-2 can be operated from the wall outlet or from a 12 volt car battery. Documentation provides technical information and sources for mechanical components such as gears and pulleys. Shipping weight is 11 pounds. Don't let the price fool you, this is a quality product that works! Complete with a one year parts and labor warranty and a 15 day no-nonsense return policy. Give us a call, we'll be glad to discuss your motion control application.

THE MD-2 PACKAGE INCLUDES

- Motor drive electronics
- 6' AC power cord
- 2 Size 23 stepper motors
- 2 6' stepper motor cables
- 2 Mechanical plunger switches
- Software utility programs
- BASIC and C subroutine libraries
- Documentation

TO USE THE MD-2 YOU NEED

- IBM PC style personal computer
- 512K memory
- Parallel printer port and cable
- MSDOS 2.1 or greater

TYPICAL APPLICATIONS FOR THE MD-2

- Robotics
- Automated exhibits
- XY positioning tables
- Air vent control
- Automation simulation
- Telescope positioning
- Laboratory automation
- Sensor positioning
- Tool or Part positioning

SPECIFICATIONS

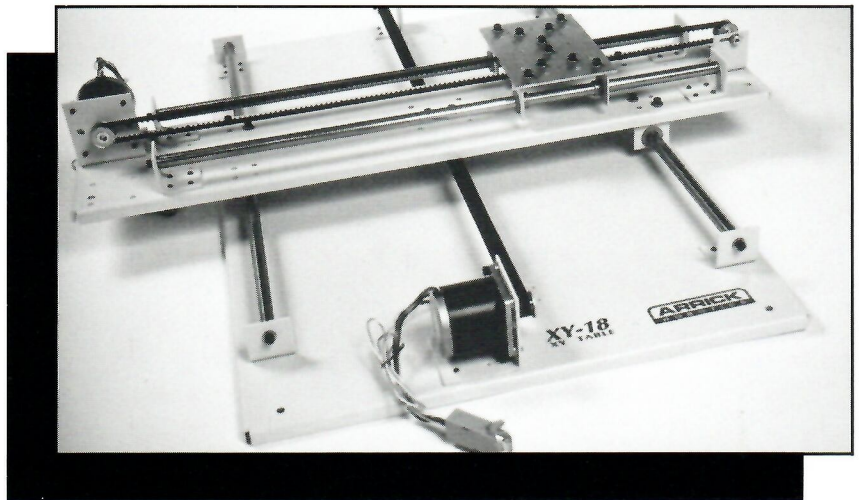|	
Power:	120 VAC at 1 amp, or 12 VDC at 5 amps.
Port:	36 pin centronics female.
Motor:	NEMA frame size #23, 2.25'' x 2.25'' body. .25'' dia., .75'' long shaft.
Steps:	.9 degree half steps, 1.8 degree full steps.
Speed:	1200 half steps per second no load.
Torque:	47 oz/in at 50 steps/second 61 oz/in holding torque Torque decreases as speed increases.
Switch:	Mechanical plunger type, .0005'' repeatability.
Media:	5.25'' 360K MSDOS format, 3.5'' 720K MSDOS format.
Software:	Subroutines written in Microsoft Quick-C V2.50 and Quick-Basic V4.00. Source code is provided for all programs.

PRICING

MD-2	Dual Stepper Motor, Driver Package	$459.95
SM23A	Size 23 stepper, 6' cable, switch	$124.95
SMEC-12	12' stepper motor extension cable	$39.95
LPC-12	12' 12 VDC car lighter power cable	$24.95
MLS	Mechanical plunger switch	$8.95
PIC	Parallel interface card for PC	$39.95
QB45	Microsoft Quick-Basic Version 4.5	$99.95
QC20	Microsoft Quick-C Version 2.0	$99.95

18 INCH DUAL AXIS POSITIONING TABLE XY-18
AND X-18

The XY-18 dual axis and the X-18 single axis positioning tables accomplish tasks normally costing much more. When coupled with our MD-2 stepper motor package, the user has complete programmable control over all motion. Both units use glass reinforced timing belts to position the aluminum carriage a full 18 inches. Instruments and other devices weighing as much as 5 pounds can be mounted to the carriage using the fifteen tapped holes provided. Polished 1/2'' solid steel shafts along with bronze bearings are used to maintain accuracy and stability. The payload can be positioned within .003'' with resolution of .010''. The RT-12 rotary table can mount to the carriage of these positioning tables. Also the X-18 can be attached to the RT-12 platform. Requires size 23 motor(s) not included. Shipping weight 30 lbs.

SPECIFICATIONS

All Specifications
using MD-2

Accuracy:	± .003''
Resolution:	.010''
Repeatability:	.003''
Speed:	.4'' / second
Width:	29.5''
Length:	27.5''
Height:	4.75''
Weight:	30 lbs.

PRICING

XY-18	Dual axis 18'' positioning table	$699.95
X-18	Single axis 18'' positioning table	$299.95

THE XY-18 PACKAGE INCLUDES

- XY positioning table including all hardware.
- Home switches on each axis.
- Tools for alignment.
- Documentation

TO USE THE XY-18 YOU NEED

- Two size 23 stepper motors and controller/ driver such as MD-2.
- Flat mounting surface 30'' x 30''.

TYPICAL APPLICATIONS FOR THE XY-18

- Sensor positioning.
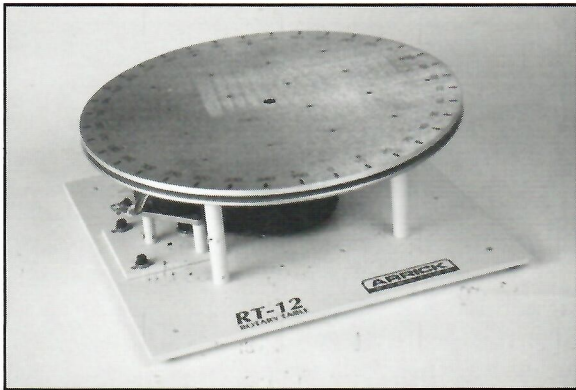- Light duty machining.
- XY robot.
- Tool or part positioning.

RT-12

12'' ROTARY POSITIONING TABLE

The RT-12 Rotary positioning table gives users a cost effective way to implement designs requiring computer controlled rotational positioning. Can be coupled to our MD-2 stepper motor controller or other size 23 motors to provide complete programmable control. Home switch is included for reference positioning. Timing pulleys and belt create a 6 to 1 reduction ratio for increased torque and resolution. The 12 inch diameter Platform has 24 tapped mounting holes and moves in .15 degree increments. Aluminum construction makes the RT-12 lightweight and strong enough to position payloads as large as 10 lbs. Can be coupled with our XY table to create 3-axis positioning. Size 23 motor not included.

THE RT-12 PACKAGE INCLUDES

- Rotary table including hardware.
- Home switch.
- Tools for alignment.
- Documentation.

TO USE THE RT-12 YOU NEED

- One size 23 stepper motor and controller/driver such as MD-2.
- Flat mounting surface 12'' x 12''.

SPECIFICATIONS

Resolution:	.15 degrees
Accuracy:	.1 degree
Repeatability:	.1 degrees
Speed:	45 degrees / second
Platform:	12'' diameter
Holes:	24 10-32 tap
Belt radio:	6:1
Width:	12''
Length:	12''
Height:	4.75''
Weight:	10 pounds.

PRICING

RT-12 12'' Rotary Positioning table	$299.95

ARRICK
ROBOTICS

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SEND TO: