

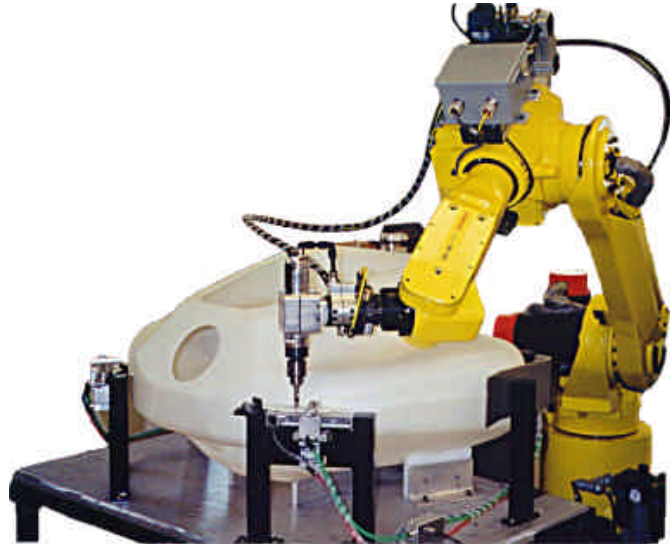
# URC Mobile Router

## Six Axis Mobile Cutting System

The URC Six Axis Mobile Router system is designed for routing and drilling plastic parts.

This system is completely mobile and allows you to bring the cell to the parts.

Cut and drill any plastic part at virtually any angle!



URC Automation

### Benefits

URC's mobile router systems allow for fast, high precision secondary operations on your molded plastic parts. Complex paths for contour cutting are easily achieved with very repeatable results.

- High accuracy and high speed to insure quality parts at the lowest cycle time.
- High up-time system designed for 24/7 operation.
- Completely mobile CNC router system.
- Many cutting tools can be used including right angle drills and routers, step drills, and a variety of router bits.
- 6' 4" x 7' 4" footprint for minimal floor space usage.
- Easy to learn programming and operations. Operation training usually takes just one day.

### System Features

- 6 axes of motion to cut and drill at almost any angle.
- Quick change tool changer with 2 tools standard. Up to 6 tools can be programmed for each part.
- Collision sensor for protection of robot tooling during setup and operations.
- Fork-pockets and castors for easily moving the system.
- Lexan enclosure and sliding doors provide optimal safety.
- Light curtain allows safe loading of parts into fixture.
- The teach pendant is used for recording positions, jogging the robot, and creating and editing programs.
- Digital input and output modules are standard for use with clamping circuits on fixtures.
- Built in diagnostics.

### Program Features

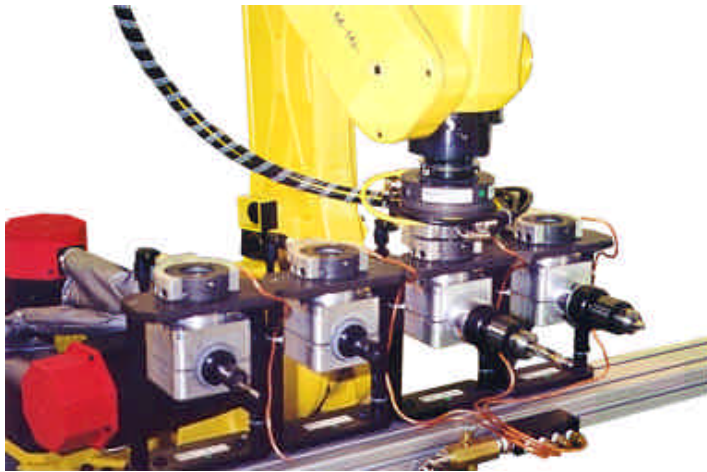
- Preparatory codes, feedrate and target position for each step.
- Positions can be edited or taught and are usable for other program steps without retooling.
- Circular and linear interpolation allow for complex blended paths.
- Background program can control fixture clamping circuits.
- Full range of logic, math and I/O functions.
- URC provides shell programs for all cutting and tool change functions. Only the actual cutting path has to be taught for new parts.

This system is turn-key, ready to be programmed to run your part in production!

| Items                         | Specifications  |
|-------------------------------|---|
| Robot                         | 6 Axis FANUC robot specifically designed for material removal applications                                    |
| Mobile platform               | 6' 4" x 7' 4" heavy structural steel platform with fork pockets, castors and anti-vibration pads              |
| Tool changer                  | Pneumatic tool changer  |
| Tool nests                    | 2 standard nests with tool holders, can use up to 6 tool nests  |
| Tools                         | (1) .9 HP air router, (1) .9 HP drill standard  |
| Collision sensor              | Pneumatically adjustable breakaway sensor to protect robot tooling during program setup                       |
| Light curtain                 | Configured as "hand barrier" for loading part fixtures, robot is E-stopped and tool turned off when activated |
| Safety enclosure              | Lexan enclosure with sliding doors on each side, interlock safety switches                                    |
| Operator console              | E-stop, Clamping, Run, Hold, Reset functions  |
| Maximum radius reach          | 63.2 inches   |
| Horizontal stroke from radius | 42.2 inches   |
| Repeatability                 | +/-0.003 inches   |
| Maximum speed                 | 80 inches / sec   |
| Mechanical brakes             | All axes  |
| Mechanical weight             | 4200 lbs  |
| Fixtures (option)             | URC can design fixtures to hold your part   |
| Additional Tools (option)     | Step drill, right angle router and drill, cutoff wheel, straight drill and router                             |



URC can provide a variety of router solutions including two other models of mobile routers, dual slide station router systems, and custom drilling machines with GE FANUC controls.



URC Tool Changer System

Need just one fixed tool instead of a tool changer? URC can customize our systems to meet your needs!

Call for a free CD-ROM that features videos of this system in action!

| System Features         | Description  |
|-------------------------|--|
| Step/Auto program run   | Single step forward/backward, auto run   |
| Editing functions       | Insert, Add, Delete, Cut, Copy, Paste, Create                                    |
| Teach pendant           | All system functions available   |
| Absolute pulse encoders | No homing of robot required  |
| Feed rate override      | VFine, Fine, 1 to 100% of program speed  |
| Guided entry editing    | Requires minimal keystrokes with drop down menus and fill in the blank templates |
| I/O diagnostics         | Examine, force and simulate  |
| Jog / Teach             | Via Teach Pendant  |
| History log             | Shows status and error messages  |
| Program Functions       | Ranges   |
| Preparatory             | Joint, Linear, Circular, non-motion  |
| Program speed           | Up to 80 inches /sec for non-cutting motion                                      |
| Cutting speed           | Dependant on material, typically 1 to 4 inches /sec                              |
| Output                  | On, Off, Pulse   |
| Input                   | Wait On/Off, transfer to register, branch to label if On/Off                     |
| Sub routine             | Branch to named routine  |
| Registers               | Clear, input, transfer, add, subtract, multiple, divide, compare                 |
| Relational operators    | =, <, >, <=, >=, <, >  |
| Branching               | Based on relational operators, inputs, unconditional branches                    |
| Other                   | Dwell, cycle time, block end, program end  |

For more information about URC's routing systems, call **URC** at:

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