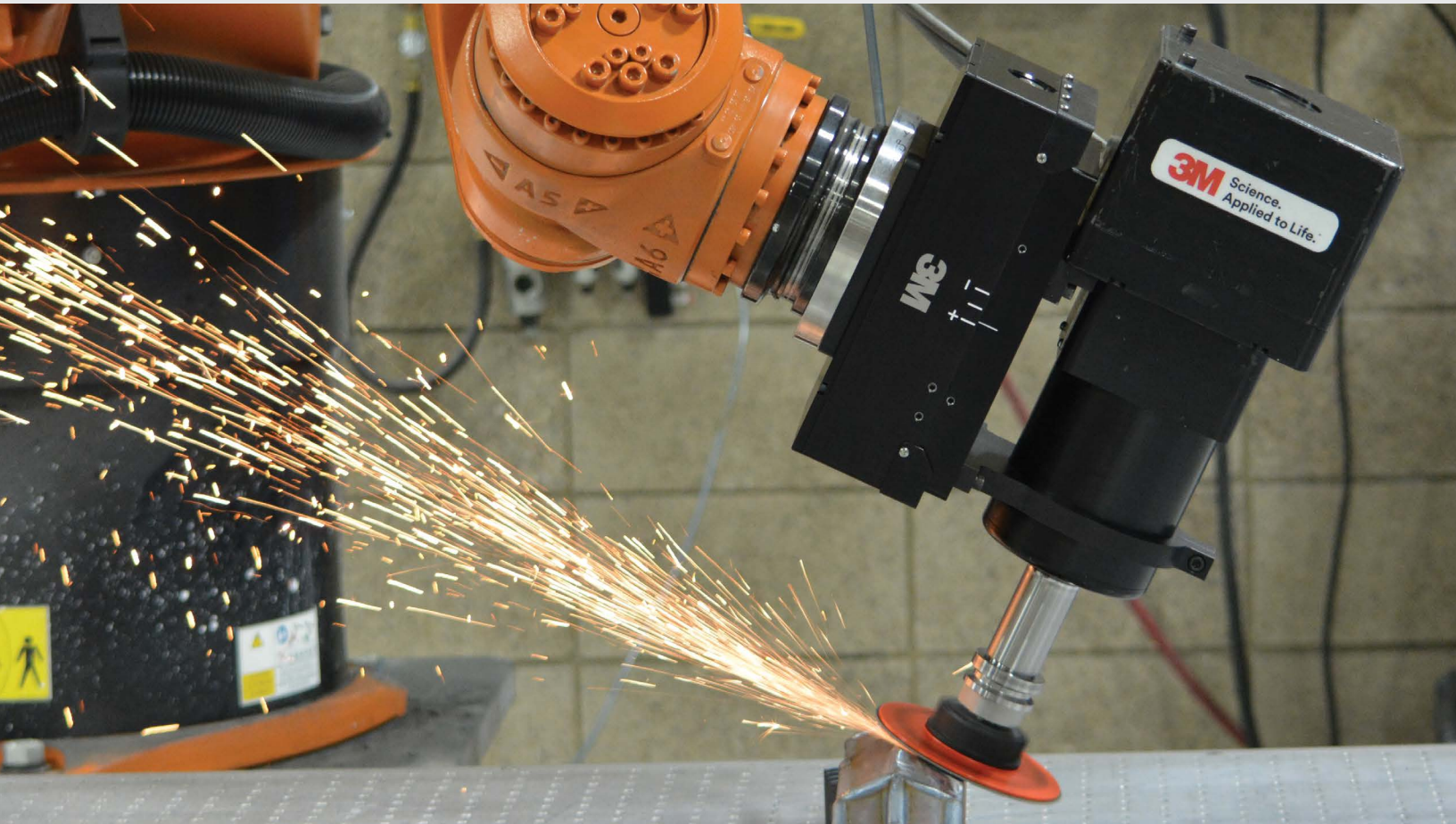


# Surface grinding and finishing

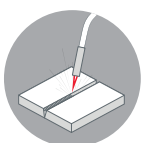


## Drastically reduce robot programming time

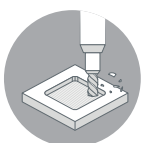
Generate error-free robot programs with powerful and easy-to-use offline programming software.

Reduce programming time and eliminate robot downtime on production runs of all sizes.

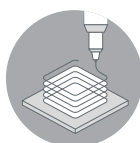
Enable your process experts to unlock your robot's full potential without the need for robotics expertise.



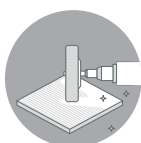
Welding



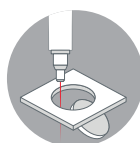
Milling



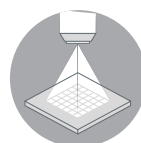
Additive



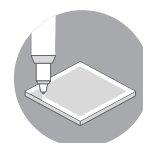
Surfacing



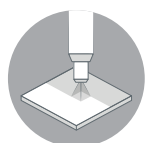
Material Removal



Inspection



Dispensing



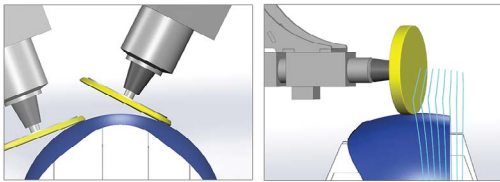
Spraying

## Manual challenges

- Manual surface grinding and finishing is time consuming and tedious
- Requires operators to have a high degree of technical skill
- Tasks are generally labor intensive leading to a high turnover rate and requiring retraining
- Often results in inconsistent finishes, reworking, and an increase in scrap parts
- Higher risk of worker injury and environmental risks
- Production bottlenecks regularly occur due to labor shortage



## Tooling control



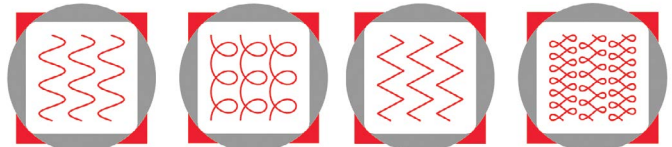
## Surfacing applications programmed with Robotmaster

- Sanding
- Grinding
- Polishing
- Spraying/painting
- Inspection
- Shot peening
- Hammer peening
- Laser hardening
- And more

## Key advantages programming with Robotmaster surfacing technology

- Automatically generate paths from CAD models within Robotmaster®
- Easily program surface trajectories of varying complexity
- Path strategies and patterns include: morph, spiral, parallel, sinusoidal, trochoidal, triangular, and figure 8
- Powerful path editing tools to control robot trajectory
- Set smart entry, exit, and path transitions
- Control the tool orientation to use the front, back, and/or side of the tool
- Drastically reduce programming time especially in high-mix, low-volume production runs
- Reduce the amount of rework and scrap, as a result of consistent and accurate parameter and path definition
- Optimize the program path to avoid errors and collisions
- Get live visual feedback as changes are made to the program; identify robotic errors and collisions and resolve them within a matter of clicks
- Maximize profitability and increase the robots return on investment

## Path strategies and patterns



Sinusoidal

Trochoidal

Triangular

Figure 8

## Robot takes over lipskin production at aerospace manufacturer



Scan the QR code to learn more about Robotmaster for surfacing applications and read about McStarlite's success story.

For more information, visit: [www.robotmaster.com](http://www.robotmaster.com)

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