



Application Solution:
Welding

Automates MIG or TIG welding for small to mid-sized metal components with high repeatability, reduced rework, and improved operator safety. Ideal for welding repetitive parts or short-run jobs where traditional automation isn't cost-effective.

IDEAL USE CASES:

- Metal fabrication shops
- Job shops and low-volume production lines
- Automotive and trailer frame component manufacturers
- Agricultural, HVAC, and structural steel industries

WHAT YOU NEED:

Cobot Arm: 6-axis collaborative robot with welding-certified firmware and IP-rated build

Welding Torch & Feeder: Integrated MIG or TIG torch with wire feeder system and mount

Welding Power Source: Pre-integrated, robot-compatible power supply (e.g., Fronius, Miller, Lincoln)

Programming Software: Intuitive weld path programming interface with arc start/stop templates

Welding Table & Fixture: Heat-resistant table with clamping system or custom part fixture

Fume Extraction: Fume arm or hood (required for safety and code compliance)

Programming Software: Intuitive drag-and-drop programming interface with pick/place templates

Safety Equipment: Welding curtains, optional scanner, or light curtain for nearby operators

Cable & Hose Management: Routing package to prevent torch drag or entanglement

Training & Setup: 2 days on-site setup, welding parameter tuning, and operator training

SPECIFICATIONS:

Weld Process: MIG or TIG

Payload: 8–10 kg (torch + cable package)

Reach: 1100–1500 mm

Weld Repeatability: ± 0.05 mm

Wire Types: Solid, flux-core (varies by torch)

Power: 220V–480V (based on weld source)

Shielding Gas Control: Integrated via robot or external solenoid

PACKAGING OPTIONS:

Standard: Cobot + MIG torch + basic table + weld programming software

Plus: Adds custom fixture, cable management kit, and advanced motion templates

Premium: Includes fume extraction, TIG setup option, safety curtain, and mobile base

