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UNIVERSAL ROBOTS

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Hypertherm[®]

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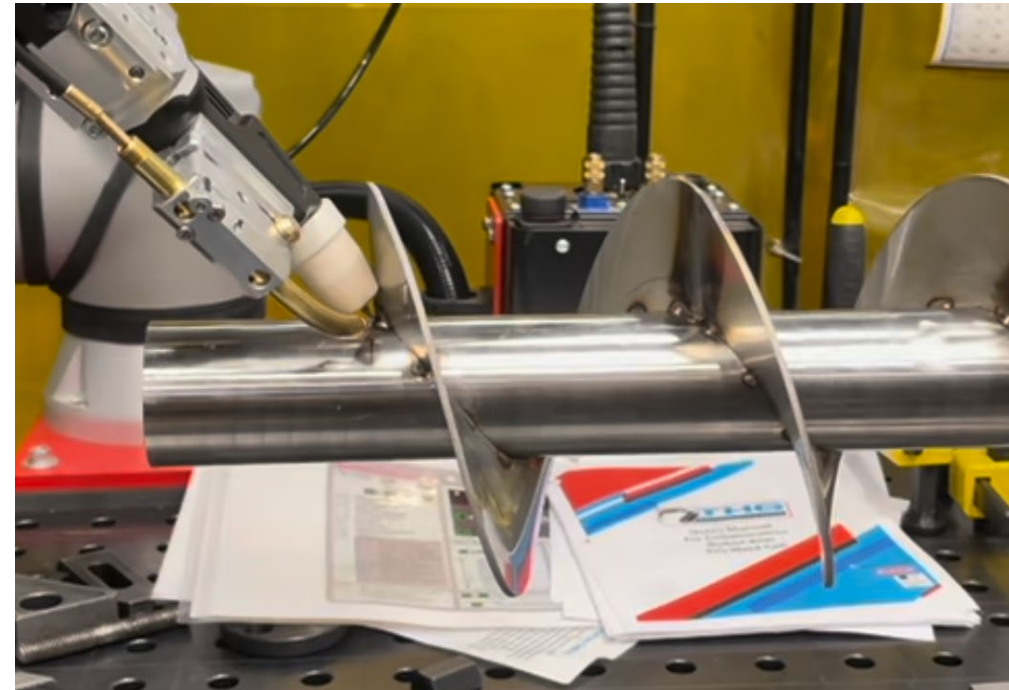
The Lego Set of Adaptive Production

Shipbuilding Cobot Alliance

Who is THG Automation?



- Focused on Productizing Cobot Integration into Modular Production Tools
- History
 - 50+ yr Industrial Automation
 - 40+ yr Industrial Design/ Product Development
 - 50+ yr Software Development
- Diverse Background
 - Industrial Welding to Ag Biotech



System Capabilities

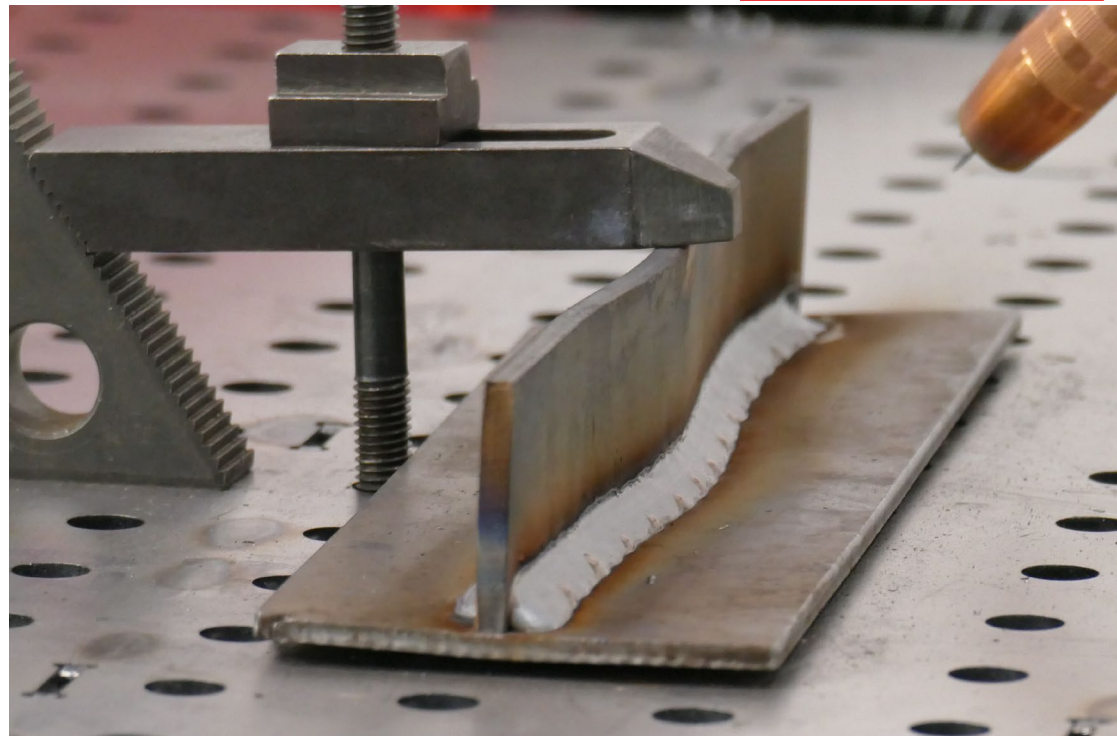
- User Convenience
- Yard Security
- Adaptive Production
- Weld Performance



User Convenience



- **Teach Mode**
 - Keeps wire from bending while teaching points
- **Through-Arc Seam Tracking**
 - Adapts to moving or mismatched parts
- **Side Car**
 - Use the same system to manual weld
- **Multi-op Functionality**
 - Use the same powersource to MIG, TIG or Plasma weld



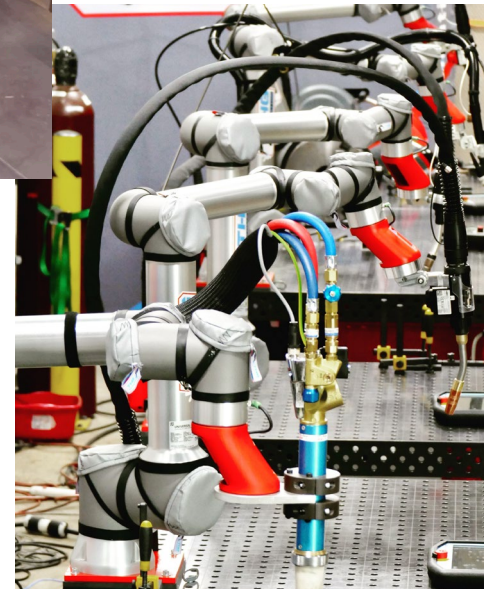
Yard Security

- **Powersource Lockout**
 - RFID lock unlock powersource with employee badge
- **Weld-cube, Realtime Weld Data Record**
 - Create chain of custody for all your welds
- **Limit Access to Certified Welders**
 - Define Access Rights Based on Operators Roles
- **Web Access Not Needed**
 - No web access needed to teach robot



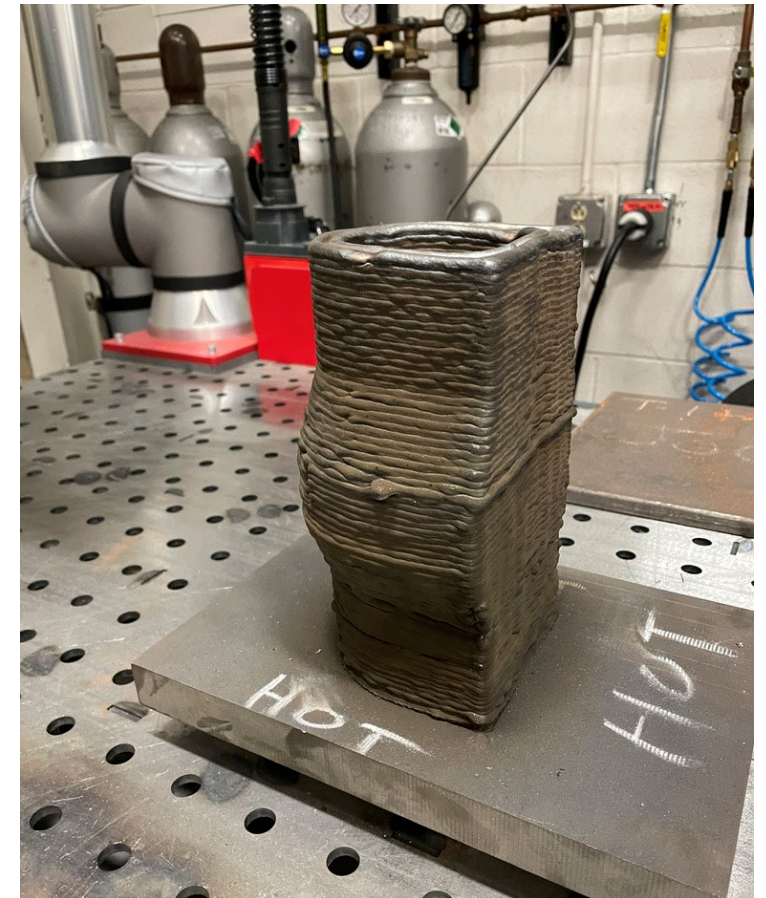
Adaptive Production

- **Modular Configuration**
 - Mobile base, table, positioners, magbase - all interchangeable
- **Multi-Op Weld Functions**
 - One powersource - many weld processes
- **Tool Change**
 - Cut an access panel then change the tool to weld it back on.
- **Easy Redeployment**
 - Paint, Sand, Grind, Cut, Weld with the same robot



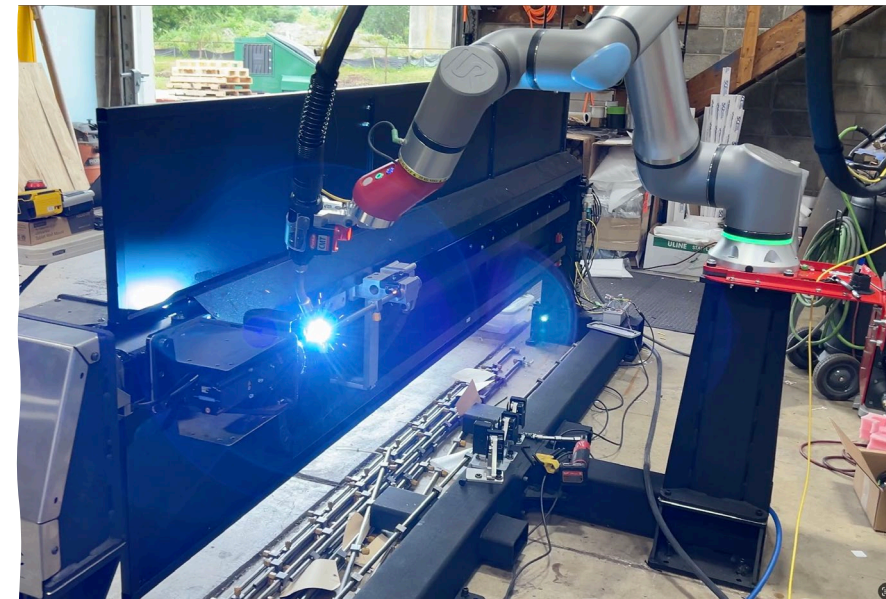
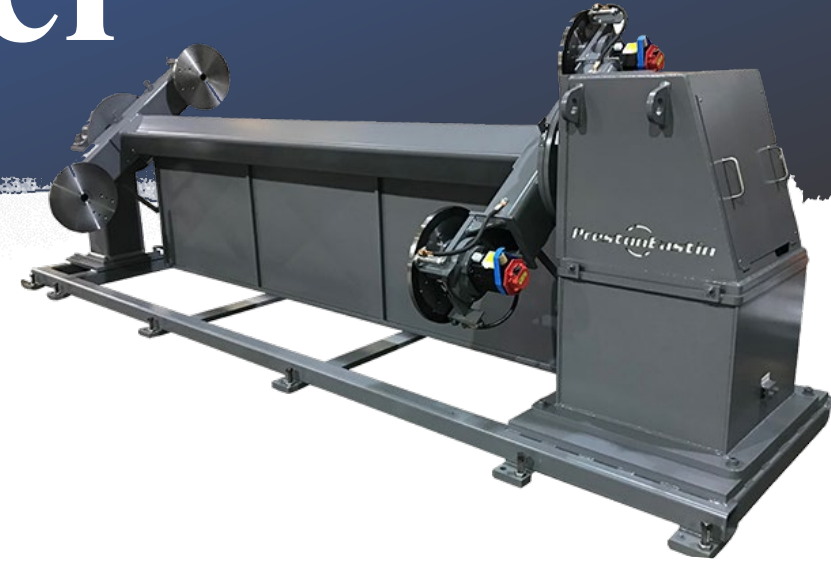
Weld Performance

- One Power Source Solutions, MIG, TIG Plasma
- Difficult materials like aluminum, stainless, titanium
- Cold Metal Transfer CMT for difficult thin metals and fast travel in thick metals
- Multi-Pass multi directional options
- Additive Manufacturing



Ferris Wheel

- **Yellow Goods Customer Needed Solution to high mix-high labor part**
- THG Automation facilitated the design and integrated Ferris Wheel Solution for fuel lines for critical business. Handed off system and trained staff in operation.



TIG Coordinated Motion

- **Motorcycle Exhaust Customer Needed Solution for Off-center Thin Titanium part**
- THG Automation designed and integrated positioners. Wrote software, optimized TIG welds, delivered and trained customer on coordinated motion solution for titanium muffler product. Handed off system and trained staff in operation.



Mobile Platform

- **Space Rocket Maker Needed New Mobile Solution to Fabricate Oversized Parts**
- THG Automation designed and delivered 8 mobile platform systems from initial discussion to onsite runoff in 6 weeks.
- System moved up to part rather than part moving to system. Has manual and auto mode.



Questions

**What can we do for
you?**

