

## DUPLICATE ASSEMBLY CARTS

### Brief Description:

Emerging Technologies, LLC. was called upon to provide nine additional Automated Assembly Carts, duplicate to the prototype previously developed by Emerging Technologies.

Emerging Technologies, LLC. enjoyed the opportunity to set up production for the manufacture of the nine units. This required coordinating special volume pricing with vendors, developing fixtures for machining and fabrication, and processes to wire and verify operation of multiple units of the same type.

Management of materials procurement, sub-assembly fabrication, final assembly, system verification, and on-site delivery were critical to maintaining the short schedule. Lead times and verification of components and sub-assemblies was key to keeping the build on track.

The design package included bill of material, mechanical diagrams, electrical diagrams, and PLC software.

The assembly cart supports clamping, holding, and positioning of sub-assemblies for final assembly.

### Customer Benefit:

The customer received the much-needed additional Automated Assembly Carts in a timely manner at a production price.



### ET Responsibilities:

- Functional Specification Generation
- ✓ Design / Engineering
- ✓ Fabrication
- ✓ Programming – Software
- Programming – Firmware
- Circuit & PCB Design
- ✓ On-Site Commissioning
- ✓ Post Commissioning Support
- Other

### Technologies:

- Embedded Computers
- Microcontrollers
- Visual Software
- ✓ Control Software
- Data Acquisition
- Computer Based Control
- Communications – serial
- System Integration
- ✓ Other – PLC control

### Special Features:

- ✓ Adjustable work height via linear actuators.
- ✓ Infinite stop and hold rotation (CW,CCW).
- ✓ Anti-tie down for rotation.
- ✓ Photo-eye product detection to prevent rotation.
- ✓ Dual e-stop.
- ✓ Built in tool tray.
- ✓ Mobile design to accommodate completed product transport to testing.