

# APPLICATION BRIEF

## 2020

## MOTOR SPIN TEST SYSTEM EVOLUTION & BUILD

### Brief Description:

Emerging Technologies, LLC was called upon to evolve an existing design, fabricate, assemble, and wire a custom test system to customer provided specification. The system was to be a near duplicate of an existing system, but include updates to the electrical design for control power interlocking and operator safety.

The existing design lacked accurate drawings and was not up to current safety standards. The existing design was reverse engineered and correlated with the out of date sketches that were available.

This existing LabVIEW software application was used with minimal modifications provided by the customer. System verification using the customer provided software was performed by the customer at ET with support from the ET build team.

The standard ET system build plan was developed in support for the newly created design package. Components were provided by the customer as well as a portion ordered and supplied by ET. The DUT fixture was supplied by the customer and upgraded for safety management by ET.

### Customer Benefit:

The customer is able to keep cost down by upgrading an existing aging design while taking advantage of the existing software. New fixturing and current safety management allowed for use in the customer's strict safety conscious manufacturing environment. Additionally, the customer benefited from the experience of ET's test system knowledge in cleaning up the electrical design.



### ET Responsibilities:

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

### Technologies:

- Embedded Computers
- Microcontrollers
- Visual Software
- Control Software
- ✓ Data Acquisition
- ✓ Computer Based Control
- ✓ Communications
- ✓ System Integration
- ✓ Other – Motor Drives

### Special Features:

- ✓ Complete System Verification at ET.
- ✓ Design Evolution of Existing System.
- ✓ Operator Safe DUT Fixture Management.
- ✓ Adjustable Monitor Mount & Keyboard Tray.
- ✓ Experienced Test Systems Design House Build.