



# Composite Motors, Inc.

## Manufacturing & Engineering Services

### Case Study 1-R&D to Motor Design

- Design & Manufacture
- DFM Techniques for Production
- Testing Prototypes with Design Improvements

### Case Study 2-Production & Development

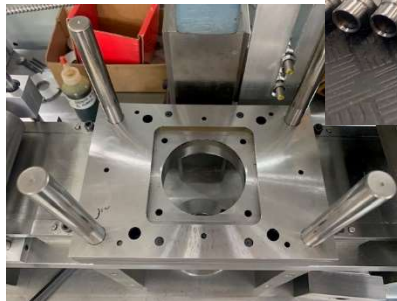
- Used FEA Simulation for Change Evaluation
- Stator Slot Width and Wiring Changes were confirmed to work as designed

### Case Study 3-Build to Print

- Built to Customer Specifications with DFM
- Documented Performance Data

### Case Study 4-PCBA Design, Validate, & Manufacture

- Built to Specifications Needed for Internal Controller Project
- Design Software used for:
  - Schematics
  - Firmware
- PCBA Test Validation
- 6 Digital Inputs/Outputs
  - Programmable to be an Input/Output
- 2 Analog & 3 Hall Inputs
- Communicates across C.A.N./Serial Programs
- Battery Undervoltage Cut-Off
- Logs Live Data



## ABOUT US

Our story is a long one and while the years have brought many changes, from our company name to our industry, we have never faltered in our mission to deliver highly designed and performing custom solutions.

We began as Joburn Tool in 1966 in Attleboro, Massachusetts working in the tool and die business before taking the steps toward manufacturing semiconductor packaging materials for the electronics industry as Composite Technical Alloys. After decades in the industry, we created Composite Modules, Inc. which was followed by the creation of our sister company, Composite Motors, Inc.

Since 1965, we have been committed to delivering high quality and high precision electronic products for extreme environments. Composite Motors has met the continuous demand from industry leaders for smaller size, greater functionality, and innovative electronic devices that operate in harsh environments.

## SUMMARY

- **Electronics –**
  - Surface-Mount Placement
  - Circuit Design
- **Engineering –**
  - Build-to-Print/DFM/FEA
  - Motor/Mechanical Design
- **Custom Motor Winding –**
  - Hand Winding for R&D/Prototyping/Low Volume
  - Auto Winding for High Volume/Production
- **Injection Molding –**
  - Overmolding
  - Mold Design
- **Precision Machining –**
  - EDM
  - Milling/Grinding
  - Laser for Low & High Volume
    - o Cutting
    - o Stamping
    - o Molding
- **VPI & Parylene Coatings**
- **Motor Testing –**
  - Electrical Testing
  - Performance Testing