



Advancing your products through adaptive technology

Micro Control Designs, Inc. (MCDI) designs, develops, and delivers embedded systems and electronic controls. MCDI can handle all of the product design details - from simple engineering jobs to creating custom embedded systems for complex products.

MCDI can provide a wide range of engineering services, from a simple hourly arrangement to assist with high workload, to a total outsourcing of product development. Projects can be limited to a specific aspect of product development, such as test development, writing embedded code, or creating associated test fixtures or demo gear for a product.

MCDI can also provide custom products, such as our line of wireless modules that are used to replace cables with a radio link. New products can be created with a minimum of customer involvement.

Your Partner For:

- New product design
- Technology development
- Embedded systems
- Outsourcing of design
- Tested assemblies
- Embedded code

Designing electronic products encompasses much more than choosing the right parts and wiring them together. From selection of parts to PCB layout and packaging design, every detail must meet goals for cost, manufacturability, testability, and serviceability.

Today's fast-changing electronics environment means that new parts come and go quickly - MCDI can manage changing technology to assure that a product continues to meet its design goals.

With many years of development experience, MCDI has created an extensive library of engineering applications that allows for delivery of sophisticated and complex solutions in a timely manner. By bringing in already-existing design elements, the final design can come together very quickly.

Prototyping, PCB layout, and software development are all done in-house. MCDI has close relationships with suppliers and vendors, minimizing the time spent to obtain PC boards and getting boards loaded. On a quick-turn project, MCDI will deliver a high quality design in the shortest time possible. Focusing on quick turn around allows our customers to develop and market their products in a shorter time frame.



Some products MCDI has enhanced:

- Dynamometer equipment that sets the industry standard
- Towing dynamometer measurement & control electronics
- Valve spring tester
- Gas and diesel fuel-flow measurement systems
- J1708 vehicle network interface
- Emissions dynamometer controls
- Power generation test equipment
- Handheld display/control interface
- Embedded web server for setup/control
- Consumer products
- LED/LCD displays (including color 1/4 VGA)
- Commercial exercise equipment



Technology building blocks:

- FreeScale (formerly Motorola) MC683xx, including real-time operating system
- FreeScale HC05, HC08, HCS08, 56F83xx DSP Hybrid
- Zilog microcontrollers, Intel x86, Microchip
- Code blocks to drive almost any conceivable embedded device
- Wireless connection via Bluetooth or 900MHz radio modules
- User interface with LCD/LED displays, membrane switch panels, and touch screens
- Ethernet (TCP/IP) networking, including embedded web servers
- Extensive Linux experience



Sensors and actuators:

- Analog electronic designs in noisy environments
- Isolated high-voltage measurements
- 50/60Hz phase control (SCR's)
- Pressure, force, and temperature measurements using most available sensor technologies
- Position sensing using LVDT's, encoders, linear pots
- Motor control for DC, AC induction, and stepper motors