

CodaOctopus

COLMEK

RESEARCH & design capabilities



The most advanced researchers know what they need to get the job done, but conceiving a system and building it are entirely different challenges. At Colmek Systems Engineering we have experience at every stage of the research process: designing, prototyping, manufacturing, deploying and servicing complex systems in some of the planet's harshest environments.

When it comes to designing systems for specialized and demanding environments, Colmek Systems Engineering can meet your needs with real-world simplicity. Colmek's staff and partners work together to develop options which can accommodate small or large production runs, limited budgets, and time constraints. Our collective experience has taught us what questions to ask. Can it be produced cost effectively? Is it rugged enough to match the environment's demands? Can it be upgraded to take on tomorrow's problems?

Colmek has built a myriad of specialized systems from the ground up, but we can also adopt your partially completed concepts, assemble working prototypes, and prepare for full production. Our specialists can finalize all aspects of your design and provide the test services necessary to certify it for environmental ruggedness, electromagnetic radiation and susceptibility, and functional compliance. Our seasoned technical writers and designers can create technical manuals, users guides, and DOD-STD-100 Level 2 drawing packages.

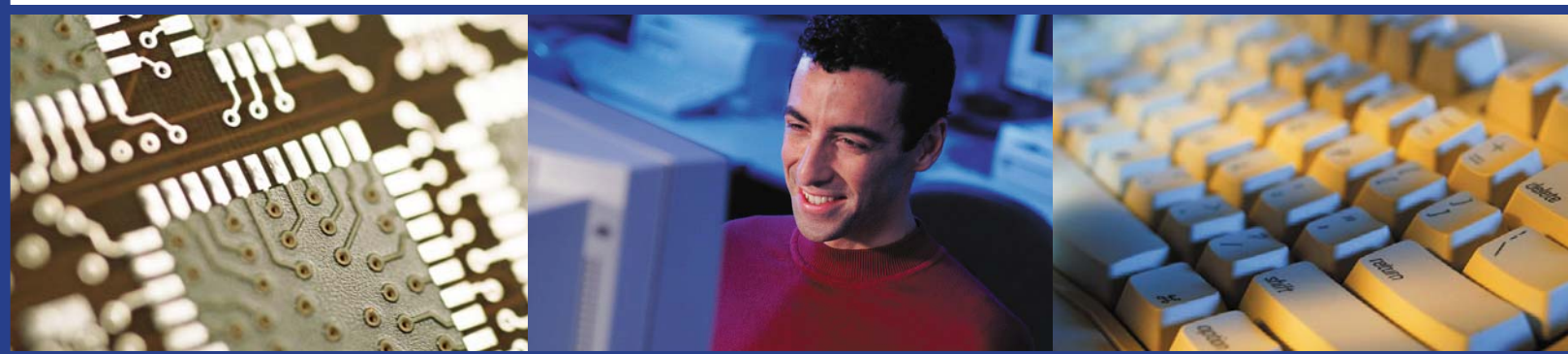
Whatever your application needs, Colmek becomes part of your team. Everyone at Colmek working on your project is as dedicated to its real-world success as you are, and we will provide 24-hour availability for support. We often agree to flexible working hours to accommodate your needs. Best of all, our design personnel have field experience installing, troubleshooting, and providing in-field product support in the harshest and most unpredictable environments.

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engineering capabilities

- System design
- Requirments analysis
- Specification generation
- Prototype fabrication
- Network and inter-process communication planning
- Technology refresh
- Obsolescence planning and mitigation

digital design

- Programmable logic design
- Microprocessor design
- Telemetry systems
- Data acquisition and storage

analog design

- Analog data acquisition systems
- Power supplies and power power management

systems integration

- Network communications
- Serial communications
- Custom device interfaces
- VME systems
- PC-based systems

software design

- Embedded systems software
- Real-time software design with VRTX, VxWorks and custom operating systems
- Real-time OS
- Micro-controllers programming in assembly language and C
- Digital signal processing
- PC applications
- Microsoft Visual C/C++
- Microsoft Visual Basic

pc board layout

- Power
- Analog
- Digital
- Mixed Signal