



# MANTARO

NETWORKS, INC.

**MANTARO Networks Inc. • 20410 Century Blvd • Suite120 • Germantown, Maryland 20874**

**301-528-2244 • [www.mantaro.com](http://www.mantaro.com)**

# Mantaro Engineering Technician Services

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- In addition to Mantaro's Product Development Services, Mantaro also offers various Engineering Technician service capabilities:
  - Prototyping, Initial Board Debug, and Rework
  - Reverse Engineering
  - Software Testing
  - Test Systems and Execution
  - Configuration Database Management
- Mantaro also has extensive lab resources to support the above services:
  - Shielded chamber
  - Temperature chamber
  - Workstations
  - Model Shop

# Mantaro Engineering Technician Services

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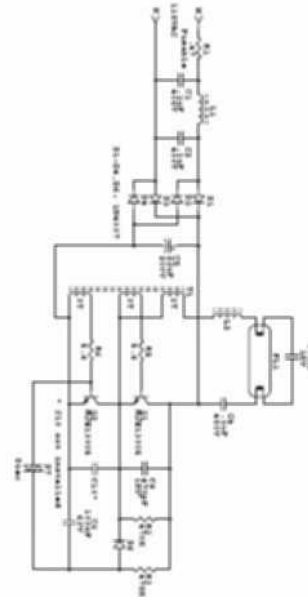


- Prototyping, Initial Board Debug, and Rework Capabilities:
  - Small quantities of prototype assembly runs
  - Bread-boarding circuits for proof of concept/design
  - Rework expertise including fine pitch parts and PCBs with heavy ground planes.
  - Write and test first board spin power-up procedures.
  - Small circuit Rapid Prototyping

# Mantaro Engineering Technician Services

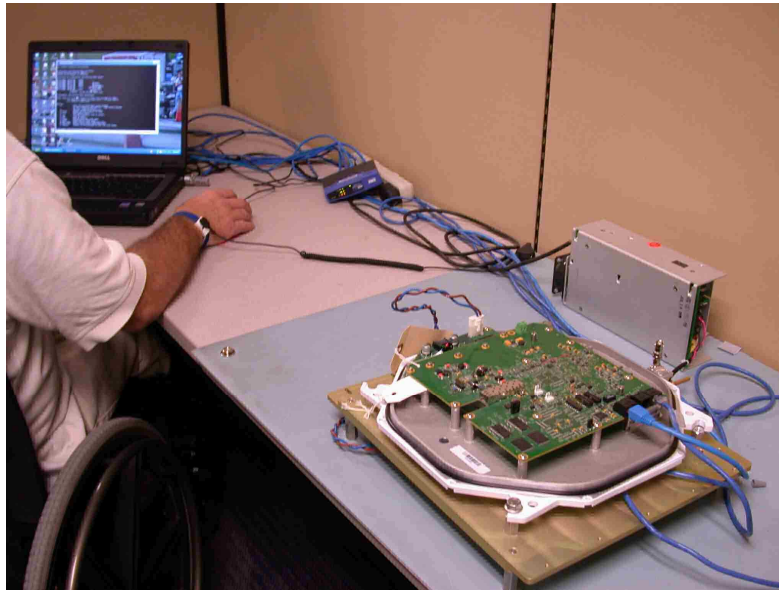
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- Reverse Engineering Capabilities
  - Circuit analysis
  - Schematic capture
  - BOM generation
  - Assembly review



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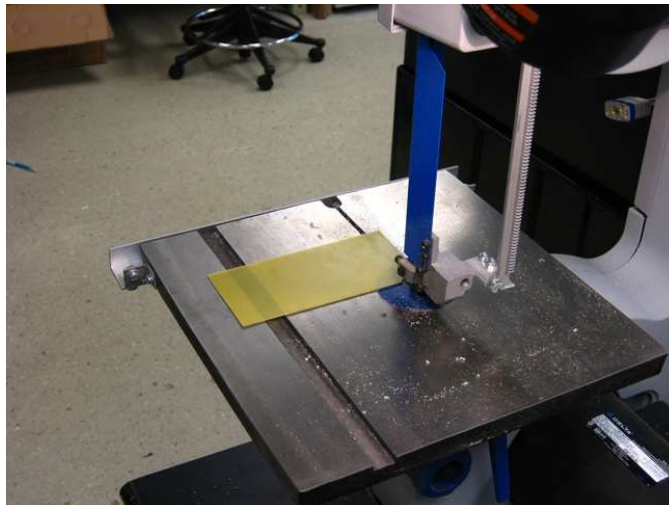


- Software Testing Capabilities
  - Firmware regression and validation testing
  - System acceptance testing
  - Identifying bugs and entering into bugs database
  - Writing / Executing test procedures
  - Scripting Tools

# Mantaro Engineering Technician Services

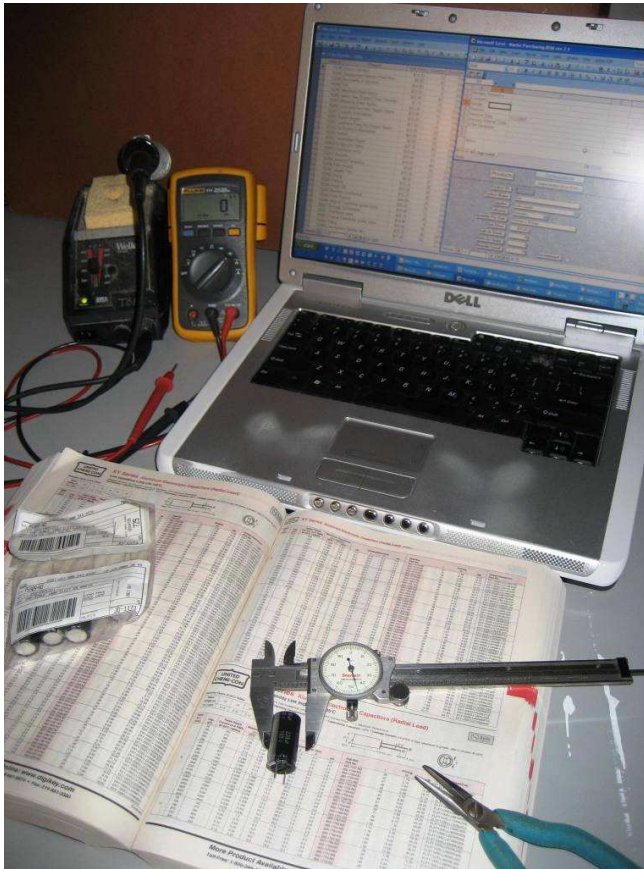
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- Test Systems and Execution Capabilities
  - ALT (Accelerated Life Testing)
  - ATE (Automatic Test Equipment) development
  - Test Fixture development
  - National Instruments Labview



# Mantaro Engineering Technician Services

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- Configuration Database Management
  - Experience in Agile, ManMan
  - Developing databases using MS Access and SQL
  - Part Sourcing
  - Process Review and Feedback

# Mantaro Engineering Technician Services

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- Lab Resources
  - 4'x8'x8' Shielded chamber for EMI / RFI screening
  - 20"x20"x20" Environmental chamber (-70°C to 170°C) with serial control
  - Fiber Optic PON Network
  - 14 work lab stations
  - 3 Fine Pitch Rework Stations (Metcal, Pace)
  - Mechanical Fabrication

