

# **Thomas C. Penick**

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## **SUMMARY**

An Electrical Engineer with experience in embedded design, instrumentation, switchmode power, and wireless data communications. Background includes 24 years experience as an Electrician specializing in design and construction of control panels.

## **EMPLOYMENT HISTORY**

**Nextus/Ringdale**, Georgetown, TX. May 2003 – Present  
Electrical Engineer.

- Design PCBs using Orcad Capture and PowerPCB for biometrics and power applications.
- Provide support to manufacturing to facilitate production and testing of products.

**Guardian Instruments**, Leander, TX. June 2001 – June 2002  
Electrical Engineer.

- Assist in the design, development, documentation, and testing of wireless crane safety systems of this small startup company.
- System design included the integration of load cells, angle sensors, remote switches, LCD displays, instrumentation amplifiers, PIC microcontrollers, SPI and RS232 interfaces, switching power supplies, data radios, video, and antenna systems. Duties included PCB design using surface mount components, component selection, and testing.
- Write software in ANSI C for 16F872 & 16F876 PIC microcontrollers for data collection and serial and wireless communications.

**T&T Electric/TEI Controls, Inc.**, Austin, TX. May 1976 – Aug. 2000  
Electrician.

- Assemble, test, install and service custom control panels.
- Create the technical documentation for contract submittals.
- Build prototypes and generate the documentation for a product line of control panels for water and wastewater treatment.
- Program PLCs for control systems.
- Created the teicontrols.com web page.

**Westinghouse Electric Corp.**, Gas Turbine Div., Georgetown, TX. June 1974 – Feb. 1975  
Mechanical Assembler, Production Coordinator.

- Participated in all areas of gas turbine assembly.
- Coordinated the flow of parts, tools, and machine use in the rotor machining area.

## **EDUCATION**

**Bachelor of Science in Electrical Engineering**, May 2001. University of Texas, Austin, TX. GPA: 3.18/4.0. Technical areas: electromagnetics and power systems. Courses taken include Antennas and Wireless Propagation, Power Electronics, Microwave and Radio Frequency Engineering, and Engineering Acoustics.

## **OTHER SKILLS AND INTERESTS**

- Licensed private pilot, instrument rated, 900 hours.
  - Journeyman Electrician
  - Writing, documentation, e.g. [www.tomzap.com/Notes/readme.html](http://www.tomzap.com/Notes/readme.html)
  - Software: HT-PIC, PCW Compiler, MPLAB, PowerPCB, Orcad, Matlab, Microsoft Word, Autosketch 2.1, Pagemaker, Paintshop Pro
  - Certified PADI open-water scuba diver and NAUI archaeological diver.
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