

Adam L. Humphreys

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FREELANCE DESIGN PROFESSIONAL

Recognized for failure diagnoses, repair, design, and prototyping. Expertise in soldering with over 20 years of experience. Experienced in renewable energy systems and small scale Atmel AVR microcontroller development. Excellent interpersonal and communication skills with the ability to interface between technical and non-technical groups.

KEY COMPETENCIES / STRENGTHS

<i>Failure Evaluation/Analysis</i>	<i>Schematic Diagramming/Implementation</i>	<i>Troubleshooting/Problem Solving</i>
<i>Machine Maintenance and Repair</i>	<i>Component Cost Assessment and Evaluation</i>	<i>General Microcontroller Development</i>
<i>Soldering/Desoldering</i>	<i>Prototyping</i>	<i>Good Team Player</i>

HIGHLIGHTS & ACHIEVEMENTS

- ▶ Planned, installed, and wired two complete home based electrical grid tie solar power systems using OutBack Power inverters and controllers alongside MidNite Solar controllers and components. One system included wind power installation and integration into the system.
- ▶ Repaired hot tub after catastrophic controller board failure due to burnout of the main heating relays that failed due to cold solder joints likely developed by heat from deteriorating relay contacts. Replacement board or details being unavailable, traces were followed manually and extended off-board to external mercury displacement relays ensuring a lasting solution.
- ▶ Designed, developed, fabricated, and programmed an automated microcontroller based greenhouse controller prototype.
- ▶ Designed, developed, fabricated, and programmed a DC kilowatt-hour logger prototype.
- ▶ Diagnosing and replacing water seals, start capacitors, contactor relays, and heating elements for hot tubs, baptistries, air conditioning compressor units, and fans.
- ▶ Designed, developed, fabricated, and programmed stuffed animal for recreation. These featured curve based twinkling LED starfield effects and alternating electroluminescent wires with user serviceable battery.
- ▶ Planned, installed, and fabricated complete interior of a portable building with solid plywood walls and laminate floor with appropriate insulation.
- ▶ Installed PEX plumbing, sewer lines, and electricity into a portable building consisting of a water heater, 3/4 bath, thirteen 15-amp rated electrical outlets, lighting, and ceiling fan on 5 circuits.

PROFESSIONAL EXPERIENCE

Self-Employed

Royse City, TX

2012-Present

Commission based repair, installation, fabricator, designer, artisan, and 3D model rigger

Freelancer

- Install, wire, and maintain, solar power systems
- Design, program, and/or fabricate electrical circuits and fixtures for customers and in-house usage
- Generate and issue estimates for potential customers
- Ensure customer satisfaction
- Photograph and process images for marketing, publications, and listings
- Manage time, stock, budget, and online listings
- Order, inventory, and evaluate parts and supplies
- Evaluate performance and sales
- Design, develop, and prototype stuffed animal patterns for in-house usage and sale
- Design, develop, test, and use embroidery files for in-house usage and sale
- Manage, maintain, update, and repair sewing and embroidery machines

EDUCATION

BA in Arts and Technology (Summa Cum Laude), *University of Texas at Dallas*, Richardson, TX
Associate of Arts (Summa Cum Laude), *Collin County Community College District*, Plano, TX

TECHNICAL SKILLS

Troubleshooting/Problem Solving
Prototyping
Machine Maintenance and Repair
AVR Microcontroller Development
C++ Programming
Multimeter Usage
Adobe Photoshop
Computer Repair
OpenOffice.org Writer, Calc, Impress
Microsoft Word, Excel, PowerPoint

HONORS ORGANIZATIONS

Golden Key International Honour Society
Honors Society of Phi Kappa Phi
Phi Theta Kappa Society
The National Beta Club