

# Robert Underwood

**Experienced Oil and Gas Automation Tech, 3D Mechanical CAD Designer and CNC Programmer.**

Midland, TX 79705

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**Professional Work Experience Portfolio Link:** <https://www.rduexp.com>

## Summary:

Experienced in Oil and Gas Automation, 3D Mechanical Cad Design and CNC Programming. Good understanding of PLC ladder logic and RMC Panel Wiring, AI, AO, DI, DO, PID'S, PT's, 4-20ma Loops, calibrations and various Communication protocols. Experience using ABB-Total Flow Software for Monitoring, Calibrating, troubleshooting, Addressing, Ethernet, Modbus 485, RS232, and other Communications. Able to read and interpret P&ID's, Electrical Schematics and OEM technical documents. Have a good background and understanding of Electric and Electro-Mechanical-systems low to medium voltage. This knowledge and understanding has been obtained working hands on in the oil and gas field and working with CNC-Machines, Programming, Troubleshooting and repairing with brand-name controllers and motor drives- FANUC, -MITSUBISHI, YASKAWA and other Motor Drive brands like EATON and SCHNEIDER. This Experience with CNC Machines consisted of HMI's, Level sensors, Pressure Transmitters, encoders, counters, pneumatics, hydraulics, valves, actuators, motors, PMW motor controls, VFD motor-controls and pumps. Most of these components are also used in the Oil and Gas Industry and this knowledge and experience can be carried over, and applied to Oil and Gas Automation and other industries. Also Have a proven-track record with safety outside of and within the Oil and Gas Safety Culture and Community. Have been successful in CNC manufacturing and in 3D mechanical CAD design. Looking forward to applying this knowledge and experience to the Oil and Gas Industry and other technologies as I continue to share, learn and grow with other teams and colleagues.

## Work Experience:

### 2022-2024: Silverline Services-Midland, Texas Oil and Gas Electrical and Automation:

- Keep a good safety track record and Promote safety culture within and outside of the Oil and Gas community.
- Work with ABB Total flow software for Monitoring, Commissioning.
- Install and configure wireless cellular modem communications, AT&T and Verizon.
- Installations of XetaWave Wireless Radio's, Ethernet and RS232 configurations.
- Prep, terminate instruments, Set, and install new Well Head PLC boxes and RMC's, Commission for new ESP wells.
- Install, Terminate automation components, point to point, troubleshoot and commissioning of Central Tank Battery facilities.
- ESP to Rod Pump conversion, ESP to GAPL "Gas Assisted Plunger Lifts" conversion, ESP to Gas Lift Conversion.
- Keep up to date, H2S training, Safe Land training, CPR Certification, Keep an Excellent Driving Record and be Fit for Duty.

### 2006-2022: MCO Construction, ID Pipe Coating Equipment, Odessa, Texas

- Design parts and prototypes using CAD software Autodesk Mechanical, and Autodesk Inventor.
- Study drawings, accurately measure parts, Program CNC Lathe, Mill, Plasma/Oxy-Fuel burn table.
- Troubleshoot, diagnose and Repair CNC Machines, Mills and Lathes working with vendors and tech support.
- Create rendered 3D Mechanical illustrations for assembly, Marketing, Engineering and manufacturing.

### 1991-2006: The Bosworth Company, Midland, Texas

- Medical gas piping installations at Medical Center Hospital and ORH, Odessa, Texas
- Commercial installations of 4 Pipe systems for building heating and cooling
- AutoCAD drafting for CNC burn table, sheet metal profiles, Piping system diagrams.
- New installations Controls and Power Circuits for HVAC and Building automation.

## Education:

1999-2002: Midland College, Midland, Texas

- Computer graphics I and II CAD software, 2 semesters
- Controls and power circuits, HVAC design

## Skills:

- Automation Tech. Oil and gas and CNC Manufacturing.
- CAD/CAM software: Autodesk Mechanical and Inventor .
- CNC Lathe, Mill, Plasma/Oxy-Fuel burn table programming .
- 3D Solid modeling and mechanical technical illustrations.
- Experienced with Electrical low to medium voltage Troubleshooting of power circuits and programmed logic control systems.
- Able to read and understand Electrical Schematics, P&ID's, and Interpret Technical documents.

## Certificates and Certifications:

2023 CPR Certified Basic Plus

2023 SafeLand USA, Safety

2023 H2S Cert.

## TEXAS STATE BOARD OF PLUMBING EXAMINERS

2000 Medical Gas Piping Installation Endorsement

1996 Journeyman Plumber license