

Accomplished Sr. Engineer, Automotive Specialist
437 Richmond Ct., Canton, MI 48347-1919,

THOMY K. WRAD
(334) 359-4232

Email: tommy.wd@gmail.com

PROFESSIONAL EXPERIENCE

Takata Holdings Inc. - Farmington Hills, MI
Senior Engineer Electronics

11/06 - Present

- **Develop, document, test, and see to production, many "safety critical" low cost crash sensor, & satellite, modules.**
- **High Level and Low Level (Board Level) Circuit Design using Analog, Digital, Algorithm Development, Buck Converter, Boost Converter, Power Supply, Supplies, Gate Drive, Fail Safe Assurance.**
- **Schematic Capture / Draw, PC Layout assist / Review, Prototype, and Test**
- **Electromagnetic Compatible EMC Design & Improvements, Circuit Simulation, Component selection,**
- **FMEA, Failure Mode Effect Analysis develop, WCA, Worst Case Analysis develop / assist / review**

Methode Electronics Inc - Southfield, MI
Technical Specialist. Engineer Electronics

2/98 - 9/06

- **Created many Quotations, concepts, write disclosures, and some patents issued.**
- **IR Position sensor, Torque Sensor, and other Board Level product designs, concept through to production using Analog, Digital, Motor Control, Power Electronics, Algorithm Development, Buck Converter, Boost Converter, Power Supply, Supplies, Gate Drive, Fail Safe Assurance and more.**
- **Responsible for many program EMC improvements to successfully meet customer requirements.**
- **Cultivate sensor mechanical and electrical IR, Magnetic, and capacitive concept, design and test.**
- **Diagnostic and trouble shooting, DFMEA and WCA development, teach and assist new engineers.**
- **Test design, fixturing fabrication, and data analysis for device, and concept characterization.**

Eaton Corp. Lectron Products. Inc. Contracted with; Duma Research Inc: - Rochester, MI
Sr. Engineer Electronics

4/97 - 2/98

- **Revise existing designs to make successful passing of EMC requirements at board level.**
- **Design at board level to reduce power dissipation in existing and new products.**
- **Design, prototype, and develop, Compass Modules for Chrysler products.**
- **Troubleshooting and Reducing cost of existing designs and extensive involvement in product packaging.**

Chrysler Corp, Jeep/Truck Engineering. Contracted with; T.E.C. Inc. - Detroit, MI
Sr. Engineer Electronics

11/88 - 9/96

- **Engine / Transmission Control board level design, Engine Control application, and systems work.**
- **Working with; IGBT's, Mosfets, Capacitor Selection, Gate Drive Circuits, Analog, Digital, Motor Control, Power Electronics, Fail Safe Assurance.**
- **Board level design improvements saving corporation over \$20M YR (World wide industry use now).**
- **Diagnostic / trouble shooting, aiding other engineers with sensors and components, improvement**

Microdot Ind. Inc. - Pontiac / Rochester, MI
Lead Engineer Electronics

5/86 - 9/88

- **Board level design, cost, prototype, test, and follow through into production, various electronic modules Sensors involving IR, Analog, Digital, Motor Control, Power Electronics, Algorithm Development, Fail Safe Assurance.**

TRW INC. - Farmington Hills, MI
Product Design Engineer

2/82 - 5/86

- **EPS, Electric Steering hardware, board level circuit design and development program, incl. Mechanical Interaction.**
- **Analog, Digital, Motor Control, Power Electronics, Algorithm Development, Fail Safe Assurance.**
- **Diagnostic / trouble shooting, and work with various other auto module testing.**

Experience: 29 Years Automotive, FCC Lifetime 1ST Class Radiotelephone License

- | | | |
|--------------------------------------|---|---|
| • 7 US Patents issued to date | • 2 Foreign Patents issued to date | |
| • Analog, Digital, & Power Circuits | • Microprocessor Circuits | • MS Dos |
| • Engine Function experience | • Automatic Transmission Experience | • Vehicle Electrical System Exp. |
| • Coax Cable installation | • Cat5/6 and Phone Cable installation | • Electric Service wiring installation |
| • Microsoft Office, & Corel SW | • Mentor Graphics, Or-Cad Experience | • (P)Spice, Other Simulation experience |
| • Hydraulics & Pneumatics | • Metal & Wood Machining & Fabrication | • Plumbing and Pipefitting |

EDUCATION:

Lawrence Technical Institute, Southfield, MI
Electrical Engineering

Schoolcraft College, Livonia, MI
Associates; Electronic Technology