PERSONAL INFORMATION:

Cy Taylor Drollinger

Owner/Operator Electronic Realization LLC est. 2007

DOB: 13/10/1968

EDUCATION:

Masters Degree in Electrical Engineering - Montana State University in the Department of Electrical and Computer Engineering - spring 2006

Bachelors Degree in Electrical Engineering - Montana State University in the Department of Electrical and Computer Engineering - spring 2000

Associates of Science from Seattle Central Community College in the Department of Math and Science - spring 1997

PROJECT PROFILE:

8/10 – Current **Inertial Motion Data Logging** (design, build, and test)

Montana State University Dept. Health and Human Performance Dr. John Seifert 994-7154

9-Axis 3-Accelerometers 3-Gyroscopes 3-Magnetometers

4-Axis 3-Accelerometers 1-Gyroscope

Completely Autonomous

USB Communication

Data Upload and Re-Programmable

Wireless Communication ANT+ Protocol

AD Hoc Networking

Li Ion Coin Cell Operation with Recharge Ability

2012 - **Manufacturing CNC** (repair)

2011 - **Manufacturing CNC** (repair)

2010 - **Manufacturing CNC** (repair)

2010 - **Mobile Power over Ethernet** (design and build)

Battery Power Supply IEEE802.3af (POE)

Long Range Wi-Fi Antennae (off the shelf)

Networked Video (off the shelf)

2010 - **Two Channel Audio Switch** (design and build)

Persistence of Hearing Research

2010 - **Safety Cutoff for a Manufacturing CNC** (design, build, install)

Flow Sensor + CMOS Analog Interface Circuitry + Machine Programming

2010 – **576 Optical Light Intensity Sensor Array** (data gathering, data analysis, and calibration)

2009 - **Manufacturing CNC** (repair)

2009 - **FPGA General Computing Platform** (design and build)

2008 - **Manufacturing CNC** (repair)

2008 -**MCU Gang Programmer for Manufacturing** (design and build)

2007 - **Manufacturing CNC** (repair)

2007 - **Power Data Logging with Analysis - Vertical Axis Wind Turbine** (design and build)

FPGA General Computing Platform (off the shelf)

Original Design Additions

Load Cell with 20bit ADC

RPM Detection

Battery Power Supply

2006- **Optical Laser Image Processor** (repair)

2003/2006 - **Digital Control Stabilization of Optical Oscillation** (design, build, and test)

FPGA General Computing Platform (off the shelf)

Digital Signal Processing Control Algorithm