

Advanced Electronic Designs, Inc. (AED) is an electronics engineering product design and development firm located in Bozeman, Montana

## **OVERVIEW**

Founded in 1994, AED thrives on solving intricate design challenges and developing innovative solutions for a diverse clientele. Client engagements range from small technical assistance to full turn-key product development.

With a focus on efficiency and effectiveness, AED leverages past designs to accelerate the development process and reduce risk. Our nimble and responsive engineering team coupled with in-house quick-turn prototype manufacturing capabilities significantly shortens development timelines. AED's approach to engineering can lead to new products and features not initially imagined, turning single products into multi-market opportunities.

AED has deep expertise and proven capabilities across a broad range of product development disciplines, including extensive FPGA development expertise. Whether you have a preliminary concept or comprehensive design specifications, AED is your partner in converting ideas into final product design solutions.

# WHAT WE OFFER

Years in Business

**Licensed Professional Engineers** 

290

Years of Engineering Experience

Average Years of Engineering Experience



**READY TO LEARN MORE?** 















### **OUR WORK**

AED is a leader in product design and development spanning numerous industries.



#### **AUDIO, VIDEO & BROADCAST**

Ultra high resolution camera with custom sensor

High-bandwidth FPGA based video and graphics processing >400 Gbps

SMPTE ST 2110 audio/video over Internet Protocol



#### **AUTOMOTIVE & TRANSPORT**

RFSoC FPGA based LiDAR data acquisition

LiDAR Scan Mirror Control

Lithium ion battery rapid test and evaluation systems



#### **DEFENSE & AEROSPACE**

Tactical data gathering and communications equipment

Imaging for International Space Station

Military life extension programs



#### **SCIENTIFIC & MEDICAL**

Neuroscience wireless EEG patient monitor

Life support ventilator

Medical simulators for training



#### **COMMUNICATIONS & NETWORKS**

100GbE networking and FPGA packet processing

PCIe 4.0 networking and NVMe storage controller

Secure wireless mesh networks



#### **TEST & MEASUREMENT**

Machine vision / optical calibration systems

Laser based surface inspection

Pathogen DNA detection and analysis system



#### **MECHATRONICS & ROBOTICS**

Battery powered unmanned vehicle

Drone fan and gimbal controller

Precision motor control for robotics



#### **SOFTWARE**

Cloud management system for distributed digital signage

Custom embedded Linux systems

Multi-model generative AI system for generating HTML & image-based user interfaces



#### 101

PoE based building automation system

Wi-Fi, BLE, and LoRa sensors and control devices

BLE cell phone apps for consumer product control

# WHAT OTHERS SAY

Having worked with many engineers in the past, it is rare you get a group of such talented engineers all working on your project at the same time. This team is brilliant and a pleasure to work with.

- Meric Adriansen, D3 LED

This project with AED is regarded as one of the Workstation division's most successful contract design relationships ever.

-Dave Hodge, Hewlett-Packard