



mistywest

Mining & Natural Resources

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Pilot \neq Production

Survive the pilot.
Die in the production.

In mining, the hard part isn't building the prototype. It's the thousand things between pilot and fleet.

MistyWest is the only product development firm that combines extensive mining-sector pattern recognition with the full-stack engineering capability needed to deliver sensing-heavy, connected products from concept to commercial reality.

UNRELIABLE SCALE-UP LOOKS LIKE:

- Service complexity, business is unscalable
- Excessive downtime
- Technical debt from rapid go to market
- Time-bounded need for world class execution

The Experience

The right partner at the right time can allow you to cross the chasm in a year—not years.

MistyWest thinks holistically about your product and stakeholders so our engineers have a line of sight from their work to the value for the end user.

PAIN POINTS WE HELP SOLVE:

- Volumetric Measurement Uncertainty
- Real-Time Grade & Recovery Visibility
- Subsurface & Exploration Blind Spots
- Connectivity & Data Latency Gap
- Distributed Sensor Service Complexity
- Positional Uncertainty in GPS-Denied Environments
- Field Hardware Integration Debt
- Human-Factor Unscheduled Downtime

End-to-End Innovation



Exploration

MistyWest brings deep expertise across the mining value chain, from exploration to operations, helping digitize the modern mine through advanced sensing, visualization, safety, and process technologies.



Operations

MistyWest brings deep expertise across the mining value chain, from exploration to operations, helping digitize the modern mine through advanced sensing, visualization, safety, and process technologies.



Processing & Metallurgy



Logistics

How We Work

Start small.
Earn trust.
Scale impact.

Our phased approach reduces risk, creates early wins, and builds confidence before larger investments are made.

MistyWest is a partner who shares accountability for the final outcomes. We're committed to our clients' long-term success—not just project delivery.

CORE TECHNICAL DISCIPLINES

Electrical Engineering

Software Engineering

Mechanical Engineering

Industrial Design

Firmware Engineering

Electro-optical Engineering

How We Work

From **Concept** to **Production-Ready**.

Every program we take on is unique. We work closely with partners to define objectives, milestones, and outcomes that are meaningful to their strategic goals. That means the right scope at the right time, with no wasted motion.

Concept & Program Definition

We define what needs to be built, where the hard problems are, and what it will take to solve them, so your team has a clear, defensible plan before development begins.

**1-2
MONTHS**

Derisk & Design

We build and test the riskiest parts of the system first, so that technical unknowns are resolved before they become expensive problems in the field.

**2-12
MONTHS**

Integrate & DFM

Refined prototypes validated against real operating conditions. Full manufacturing documentation ready for production handoff.

**4-12
MONTHS**

Scale

Production-ready hardware delivered at scale, with a cost structure that works for your business model, whether that's internal deployment or commercial sale.

**4-8+
MONTHS**

A photograph of a tunnel under construction. The tunnel walls are covered in a dense network of white rebar. In the center, a bright light illuminates a large pile of rubble and debris. Three workers in hard hats are silhouetted against the light, standing in the foreground. The overall scene is dark and industrial.

Case Studies

Borehole Muon Tomographer for Deep Underground Imaging

CLIENT

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DISCIPLINES

Mechanical
Electrical
Firmware

KEY SKILLS

FPGA Development
AWS IoT Framework
Power Electronics
DFMA
Miniaturization




MistyWest miniaturized the detector to a ruggedized $\text{Ø}10\text{cm} \times 3\text{m}$ form factor and delivered 10 field-deployable prototypes capable of months of unattended operation. Our team successfully reduced time to market by 1-2 years vs. internal team, and supported a successful \$13M CAD Digital Supercluster Application, enabling Ideon's \$16M USD Series A led by Playground Global.


Ready to discuss your engineering challenge?

We work best when the technical path is unclear and the commercial stakes are real.

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