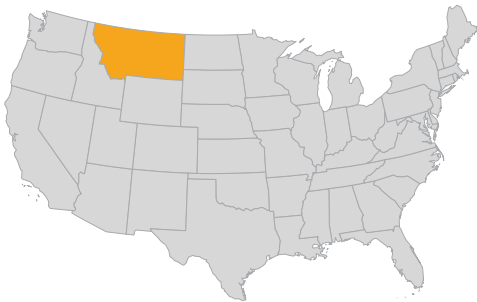




 **BOZEMAN**

## QUANTUM



Montana has a growing quantum technology presence in academia and industry. Montana State University was recently awarded a \$26.7 million federal grant to advance quantum, funding the QCORE Program to further advanced research and commercialization efforts.

### Goals

- Establish collaboration with other quantum hubs
- Find active quantum computing end users to partner with QCORE
- Meet with quantum companies looking for a presence in the U.S.

### Quantum Network Testbed

MSU's Engine Works facility hosts a rare quantum testbed with both superconducting and photonic computer systems, making it one of only seven institutions worldwide with dual platforms and one of five with a quantum network testbed. This evaluation network offers companies and researchers hands-on access to test hybrid architectures and quantum networking. Two Orca Computing PT-1 quantum photonic computers and one Regetti 9-qubit Novera QPU computer are housed at the facility.

### Supply Chain

Montana is emerging as a key player in the quantum supply chain through companies like Montana Instruments (cryogenic systems), AdVR (photonics) and VACOM (ultra-high vacuum technology). Alongside the MonArk Quantum Foundry's work on advanced materials, these efforts strengthen domestic supply chains and support in quantum technologies.

## Quantum and Photonics Organizations in Montana

Many organizations have developed and received funding to support advanced technology research and commercialization.

### QCORE

QCORE at MSU is a federally funded program that advances quantum research, education and workforce training. It hosts superconducting and photonic quantum computers, supports testing under cryogenic conditions and partners with schools and industry to build a quantum-ready workforce in Montana.

### MonArk Quantum Foundry

The MonArk Quantum Foundry is a federally funded program jointly led by MSU and the University of Arkansas. Its overarching mission is to accelerate two-dimensional materials research for quantum technologies in the U.S.

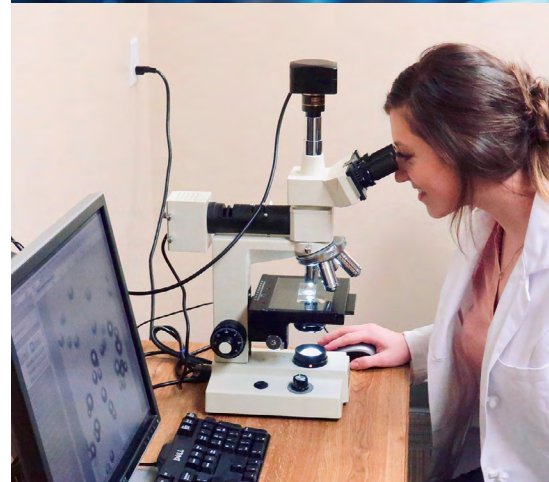
### Spectrum Lab

Based at MSU, this organization advances the opto-electronic technologies emerging from laboratories at MSU and helps these technologies become commercially viable companies.

### Montana Photonics and Quantum Alliance

The nonprofit MPQA serves as a hub for Montana's optics, photonics and quantum companies, entrepreneurs, laboratories and universities to commercialize, grow and sustain companies in these fields. The organization has 65 members.

Images courtesy of Montana Department of Commerce, Montana State University and Engine Works.



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