

Quantum

Revolutionizing sensing, computing and communication.

Quantum technologies are emerging technologies that exploit the laws of quantum mechanics to create novel devices and protocols. These new quantum devices may not only perform better than their classical counterpart, but they will also revolutionize fields such as computing, communication, and sensing.

Services

Challenge Funding

Challenges grant targeted funding for both Fabrication Process and IoT Commercial Product development.

Training

FABrIC offers many options, from introductory courses to intensive training.

- > Quantum Technology for Non-Techies (TNT)
- > Quantum Hardware Training (Part of CMC Basecamp™): Superconducting quantum circuits and Silicon quantum photonics
- > Quantum Software Training: Quantum computing with neutral atoms, Quantum Chemistry, Quantum Machine Learning

Quantum Computing Infrastructure

FABrIC Members have access to quantum software services to identify and develop business-relevant use cases. Leveraging the knowledge and experience of the Quantum team, they

can obtain assistance developing and generating proof-of-concepts to explore and validate quantum computing solutions on quantum computers. and develop business-relevant use cases. Leveraging the knowledge and experience of the Quantum team, they can obtain assistance developing and generating proof-of-concepts to explore and validate quantum computing solutions on quantum computers.

Quantum Hardware

- > IBM Quantum Hub – PINQ²

Affordable Access to Design and Packaging Services

Available for Canadian post-secondary research and teaching, these services require a paid subscription from CMC. It offers access to cutting-edge design tools and advanced fabrication services, both internationally and domestically, for superconducting, silicon photonics and quantum devices.

Multi-Project Wafer (MPW)

Services from commercial vendors for prototyping through to high volume.

Foundry

- > AMF Silicon Photonics General-Purpose Fabrication Process
- > Applied Nanotools (ANT) Silicon Nitride (SiN) Fabrication Process
- > GlobalFoundries® Silicon Photonics, Microelectronics
- > TSMC Microelectronics



Powered by



FABrIC accelerates the development of made-in-Canada IoT products and semiconductor manufacturing processes, trains Canadian talent, strengthens supply chains, and builds connections across the Canadian semiconductor ecosystem.

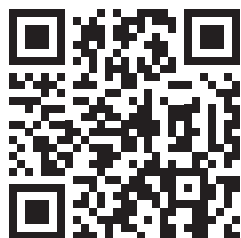
FABrIC DELIVERS

- > **Challenge Funding:** Process and product development investments
- > **Revitalized Ecosystem:** Domestic strengths, international connections
- > **Training:** A pipeline of highly qualified people
- > **IP Registry and Repository:** Faster semiconductor research, development, and commercialization
- > **Quantum Readiness:** Early access to quantum technology to propel companies to the forefront
- > **Design and Prototyping Services:** Low-cost access for post-secondary institutions

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