QONTOS

Modular Quantum Computing

Modular superconducting quantum-computing architecture with photonic links and coordinated real-time control.

Project Brief

QONTOS studies connected superconducting quantum modules rather than a single monolithic machine. Device behaviour, cryogenic integration, optical interconnection and classical timing are treated as coupled architectural requirements.

Proposed System Architecture

Cryogenic Modules

Separate superconducting modules provide the proposed computational building blocks.

Photonic Interconnect

A heralded optical link is intended to exchange entanglement between modules.

Coordinated Control

Classical control and error management must coordinate operations across the architecture.

Development Requirements

- Module and interconnect performance
- Control and error-management requirements
- Specialist fabrication and test infrastructure

What Needs to Be Established

• What quantum operations must the modules and photonic links support?

• How do link losses, fidelity and connection rates affect system performance?

• What evidence would establish an advantage over a comparable architecture without modular interconnection?

Customer & Economics

The first commercial question is the workload. A larger architecture matters only if it can support useful computation at a practical cost to integrate and operate.

Research & Further Discussion

Research source: RAM LABS

https://ramlabs.xyz/qontos.html

For a founder, research, industry or capital discussion, name the venture and the contribution or mandate you bring.

ramesh@zhyra.xyz

Prepared 4 November 2026 from the public project description. The system view is conceptual; it does not establish demonstrated performance, incorporation or investment availability.