

Rapid Applied Production, Innovation & Development (RAPID) Lab



The Rapid Applied Production, Innovation & Development (RAPID) Lab at IDEAWORKS gives manufacturers access to advanced technologies and expertise to move ideas from design to production.

Led by the Additive Manufacturing Innovation Centre (AMIC), the RAPID Lab supports manufacturers looking to improve products, processes and production capabilities through additive manufacturing and 3D printing, mechanical design, new materials development, and process optimization.

Our capabilities span the full product development cycle, including design for manufacturing and assembly, prototyping, low-volume production from 5 to 500+ units, and materials development and validation.

The RAPID Lab is home to three flagship additive manufacturing systems—the Desktop Metal binder jet system, TRUMPF TruPrint 2000 DMLS system, and Canadian-made Mosaic Array for scalable plastic production. Mohawk College is the first Canadian college to bring all three technologies together within one applied research environment.

Combined with AMIC's broader manufacturing infrastructure and technical expertise, these systems create an in-house production facility capable of supporting everything from one-off prototypes to hundreds of thousands of production units annually.

The RAPID Lab is also planned to support academic programming at Mohawk College, creating opportunities to integrate advanced manufacturing technologies and industry-informed learning into the student experience. This connection between applied research and academics will give students greater exposure to the technologies, processes and real-world manufacturing challenges shaping the future of the sector.

Through the RAPID Lab, companies can develop, test, validate and manufacture new products faster, while reducing the cost and risk associated with adopting emerging manufacturing technologies.