



Robust robotics

INGROBOTIC
AVIATION

RBR contextere 

Transformative technology

FROM IDEA TO INNOVATION, LEVERAGE OTTAWA'S ROBOTICS EXPERTISE

When it comes to robotics, Ottawa's ecosystem includes autonomous vehicles, drones and sensor-based applications for oceanography, mining, surveying and for military purposes. Ottawa's robotics industry includes hardware strength in areas such as sensors and the ecosystem boasts an emphasis in automation systems for unmanned vehicles. Further, circuit-card manufacturers have automated machines that populate cards with electronic components they run through a soldering and cleaning process. And finally, robotics are also incorporated into the advanced communications capabilities at Ottawa's Area X.O, which is leveraged by sectors including precision agriculture and aerospace.

OTTAWA AT A GLANCE





1,440,000
Total population

1,750
Knowledge-based companies

76,200
Tech employees

- #1 for highest tech talent intensity in North America
- #2 for concentration of engineers and scientists in North America per capita
- Average engineer's salary is half of that in Silicon Valley
- G7 capital, home to 65 government research labs and 136 embassies

Our immigration advantage

-  Get work permits in as few as two weeks
-  Two dedicated programs
-  No quotas or caps
-  Pathway to permanent residency





INDUSTRY

Sector stars and startups

- Four DRobotics makes bomb disposal robots that use a small tracked platform. Next-generation plans include building an automated sentry for remote location force protection.
- MDA is working on the Canadarm 3, a robotic arm for the Lunar Gateway, a permanent orbiting platform around the moon.
- ING Robotic Aviation designs and manufactures advanced unmanned autonomous aircraft systems. In one Canadian Navy anti-piracy mission, it helped intercept more than \$2 million in narcotics and contraband.
- RBR's deep-pressure loggers have been used by teams measuring the full ocean depth at the Marina Trench.

ACADEMIA

Tech talent feeders

- Carleton University has an Autonomous and Space Robotics and Mechatronics Lab, a Spacecraft Robotics and Control Lab and three robotics programs – biomedical and mechanical engineering, computer systems engineering and software engineering.
- Algonquin College offers a specialized applied robotics program, which includes a four-year bachelor of automation and robotics (honours) degree.
- University of Ottawa's Sensing and Machine Vision for Automation and Robotic Intelligence has been operating since 2009 and works in an interdisciplinary way while collaborating with industry.

GOVERNMENT

Support systems

- The National Research Council has a series of modern labs in its Digital Technologies Research Centre, which features a cobotics research facility. Researchers excel at 3D machine vision and developing new AI technologies so humans and robots can work side by side safely and productively. Areas of specialty include intelligent 3D digitization, deep reinforcement learning for object manipulation and control, simulation of cobotic manufacturing and inspection processes, inspection, understanding of human shape, and guidance and aerospace materials manufacturing automation.
- Invest Ottawa's Area X.O is a testing area for drones and connected and autonomous vehicles and companies such as Four DRobotics, Provectus, Cohort Systems and Romaeris are all using the facilities to expand their innovations.

Ottawa's Robotics Ecosystem

Industry Leaders



Academia



Government



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Three reasons to locate your business in Ottawa

- Most affordable among all Canadian and U.S. cities
- Second highest concentration of engineers and scientists in North America per capita
- Nearly 20 million consumers within a 400-kilometre radius, more than Toronto or Montreal