KINOVA & CLEARPATH

Kinova - Keith Blanchet (VP, Business Development)

Clearpath - Alain Francq (Director, Government Affairs)

NGen
Next Generation
Manufacturing Canada

KINOVA

Advanced robotic manipulation

CLEARPATH

Autonomous Vehicle Fleets for Material Transportation

Greenhouse Operator

"High-mix, low volume unstructured environments"

PROJECT DESCRIPTION

Automating (increasing throughput and reducing the cost) at least one (1) of the following, picking, packing, sorting and transporting of materials in **high-mix, low-volume, unstructured, indoor, industrial environments.**

Using a system of machine-vision enabled robotic arms working in collaboration with fleets of autonomous self-driving vehicles that are monitored, controlled and enhanced with machine-learning based workflow, fleet management tools and data science analytics.

PROJECT OBJECTIVES

- Develop an all-Canadian adaptable automation solution for high-mix, low volume unstructured manufacturing and logistics tasks
- Provide Industrial or Agricultural sector with a market-ready solution in fields with supply-demand imbalance
- Increase quality, gross profit margins and competitiveness in Canadian agricultural production facilities
- Develop advanced robotics and vision-based machine learning tools that produce clear ROI for high-mix, low-volume unstructured manufacturing and logistics tasks.

PROJECT DURATION:

18 months

STARTING MRL LEVEL:

5

ENDING MRL LEVEL:

7

NGen

OUR EXPERTISE AND ROLE IN THE PROJECT:

- We are two of Canada's top manufactures of robotics for manipulation and autonomous material transportation.
  - Robotic Manipulation Software and Hardware (Kinova)
  - Self-Driving Vehicles (SDV) and Fleet Management Software (Clearpath)
- Robotics, Perception, Autonomy, Control, Machine Learning & Data Science
- Proven collaborators in the automation of production facilities where human resources are in shortage and demand is growing rapidly.

EXPERTISE WE ARE LOOKING FOR:

- High performance vision-based sensing, automation, image processing integration
- Real-World settings for testing of Manipulation, 3D Mapping & Vehicle Navigation