OMNIROBOTIC

Industrial-grade Preception and Cognition Platform

Sam Gerges, P.Eng.

Business Development Manager

NGen Next Generation Manufacturing Canada

NGen Next Generation Manufacturing Canada

OMNIROBOTIC
Sam Gerges, Business Dev. Manager

PROJECT DESCRIPTION

Develop all functionalities of the 3D vision and Artificial Intelligence to robotize surface treatment in High Mix, Low volume segments, such as:

- Autonomous robotic liquid paint coating
- Autonomous robotic sealant application for aerostructure
- Autonomous robotic fastening for aerostructure

PROJECT OBJECTIVES

- Gain in productivity, consistency and traceability.
- Reduction of consumable and rework
- Ease of use by non-experts in real life (unstructured) production environment
- Demonstrate to manufacturers the benefits of autonomous robotics as a solution for their labor shortage problems.

PROJECT DURATION:
24months

STARTING MRL LEVEL:
5

ENDING MRL LEVEL:
8

NGen

NGen Next Generation Manufacturing Canada

OMNIROBOTIC
Sam Gerges, Business Dev. Manager

OUR EXPERTISE AND ROLE IN THE PROJECT:

- Develop our AI tech to increase its capacity to generate adequate robot motion for different surface and assembling processes.
- Improve the precision and shape recognition capacity of our 3D Vision system.
- Develop our AI tech in order to use partner tech for repeatable robot positioning.

EXPERTISE WE ARE LOOKING FOR:

- Multi-axis motion control and components to enhance the robot arm work envelope, as our AI tech can be used on very large structures.
- Robotic arm technology supporting motion stream input with industrial grade reliability and adequate precision for the targeted processes.
- Robotic arm should also be designed for lightweight and ease of integration.