

# ROS-Industrial Consortium Americas

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Community Meeting!

December 8, 2020



# Welcome!

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- Introduction
- ROS-I Consortium Americas Update
  - Human Inclusive Robotics - Lou Amadio, Microsoft
  - A ROS-based Open Industrial Manipulator – Daniel Rogge, Tormach
  - Latest Developments for Surface Finishing Applications - Max Falcone, PushCorp
  - A Proposal for a Reference ROS2 Hardware Interface Implementation – Jeremy Adams, Object Computing

# Upcoming Events

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- ROS-Industrial Conference 2020 – Organized by the ROS-I Consortium EU – December 15-16, 2020
- ROS-Industrial Training – Americas – February 23-25, 2021
- ROS-Industrial Consortium Americas 2021 Annual Meeting – TBD (was to be co-located with Automate)



# ROS2 Collaborative Development

- In collaboration with Spirit AeroSystems, NIAR at Wichita State University and the ARM Institute
- Collaborative sanding application for composite parts
- Full open-source development of a Scan-N-Plan system
  - Force-commanded constant velocity trajectory controller
  - Human marking detection and replanning
- Demo Video: [https://youtu.be/Pj\\_NsO22Bws](https://youtu.be/Pj_NsO22Bws)



Repository: <https://github.com/swri-robotics/collaborative-robotic-sanding>

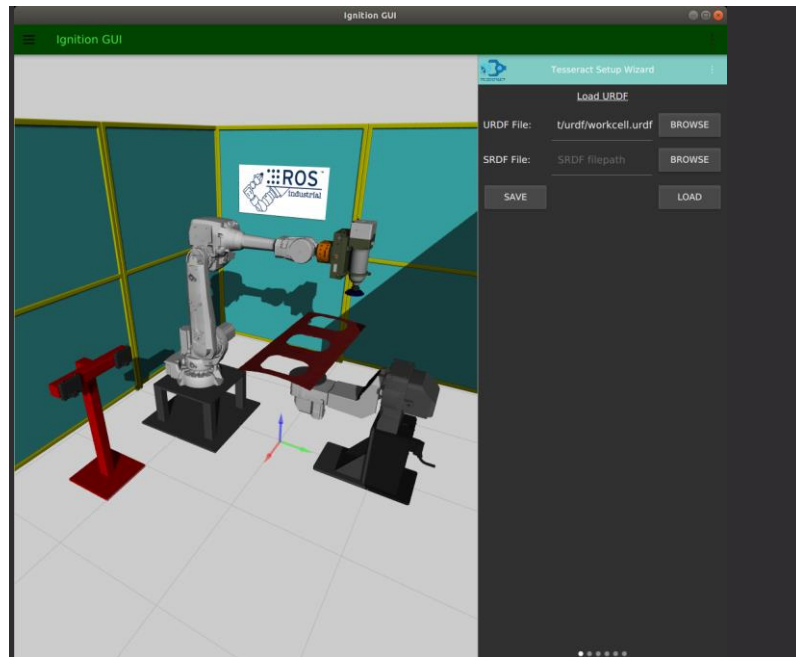


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# Further Open-Source Advancements

- Real-time planning
  - Responds to environment updates
  - Dynamic optimization
- Tesseract set up wizard
  - GUI driven application set up
  - Deployed via Snap Package
  - <https://snapcraft.io/tesseract-ignition>



<https://rosindustrial.org/events/2020/8/9/19/tesseract-real-time-planning-for-industrial-robotics-ignition>

# Thank You

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# Resources for the Community

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- ROS-Industrial
  - Home: [rosindustrial.org](http://rosindustrial.org)
  - Documentation: [wiki.ros.org/industrial](http://wiki.ros.org/industrial)
  - Code: <https://github.com/ros-industrial>;  
<https://github.com/ros-industrial-consortium>
  - Training: [http://ros-industrial.github.io/industrial\\_training/](http://ros-industrial.github.io/industrial_training/)
  - ROSin: <http://rosin-project.eu/>
- Upcoming Events (<https://rosindustrial.org/events-summary/>)

# Thank You

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