

trinity

SIMULATION WELDING AND ADDITIVE TIG WELDING

PRODUCTION MANAGER VERSION



www.trinityrobotics.eu



The TRINITY project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Module component

- The module offers a flexible robot welding system that can be used for welding processes and wire arc additive manufacturing (WAAM).
- The solutions contain the required level of intelligence and flexibility to apply robotized TIG welding in manufacturing and construction.
- The system uses the software Visual Component for simulation and control of the system.



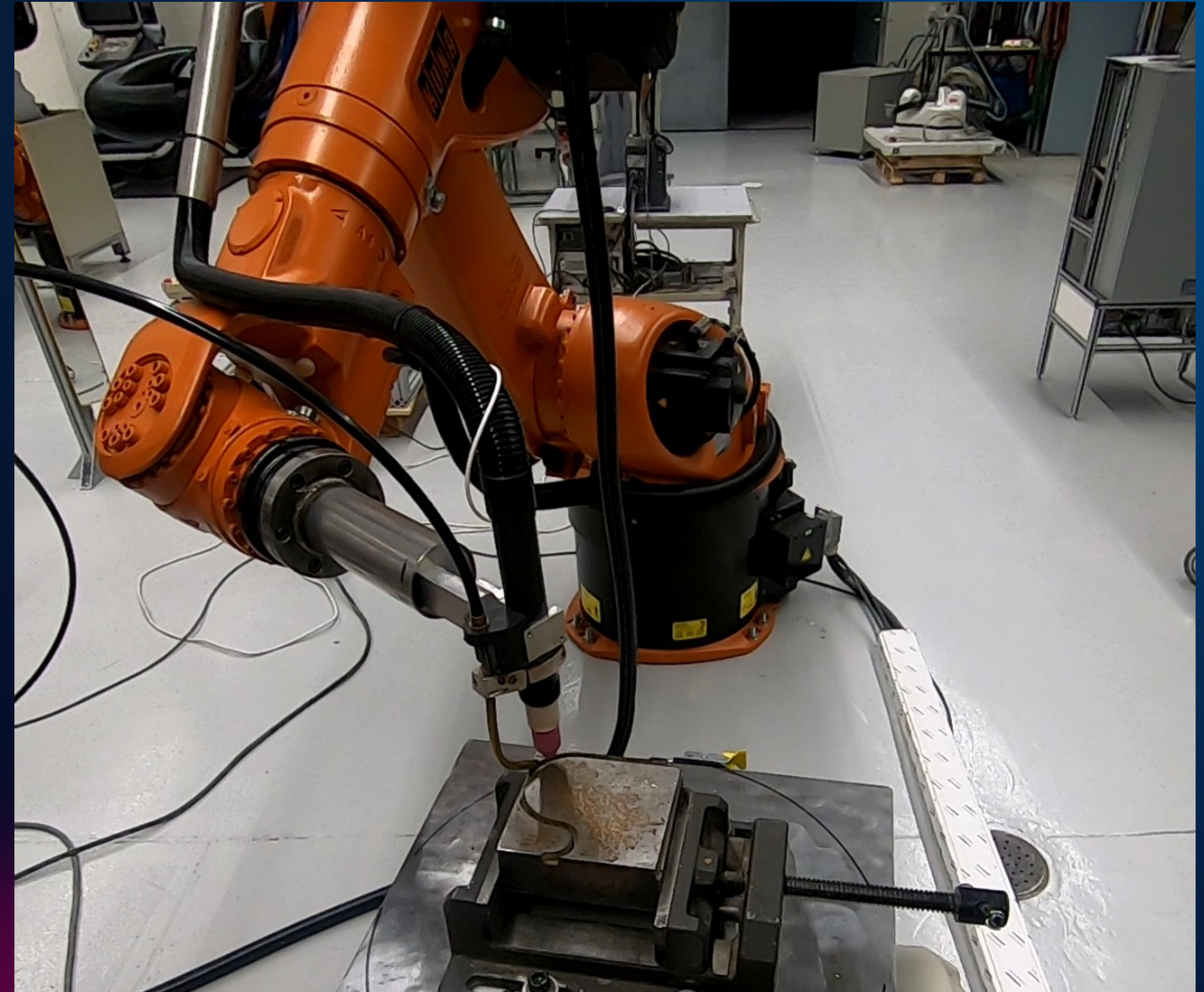
Environmental requirements

- This module has been developed with a KUKA30-3 robot arm and DPK400 rotary table. Both the robot arm and rotary table need to be caged with either a laser or physical fence.
- There should be a welding curtain/screen because of the strong light from the welding process. There should be a welding curtain/screen to protect humans from eye damage.
- There needs to be good ventilation because of the harmful gases used under welding.



Hardware requirements

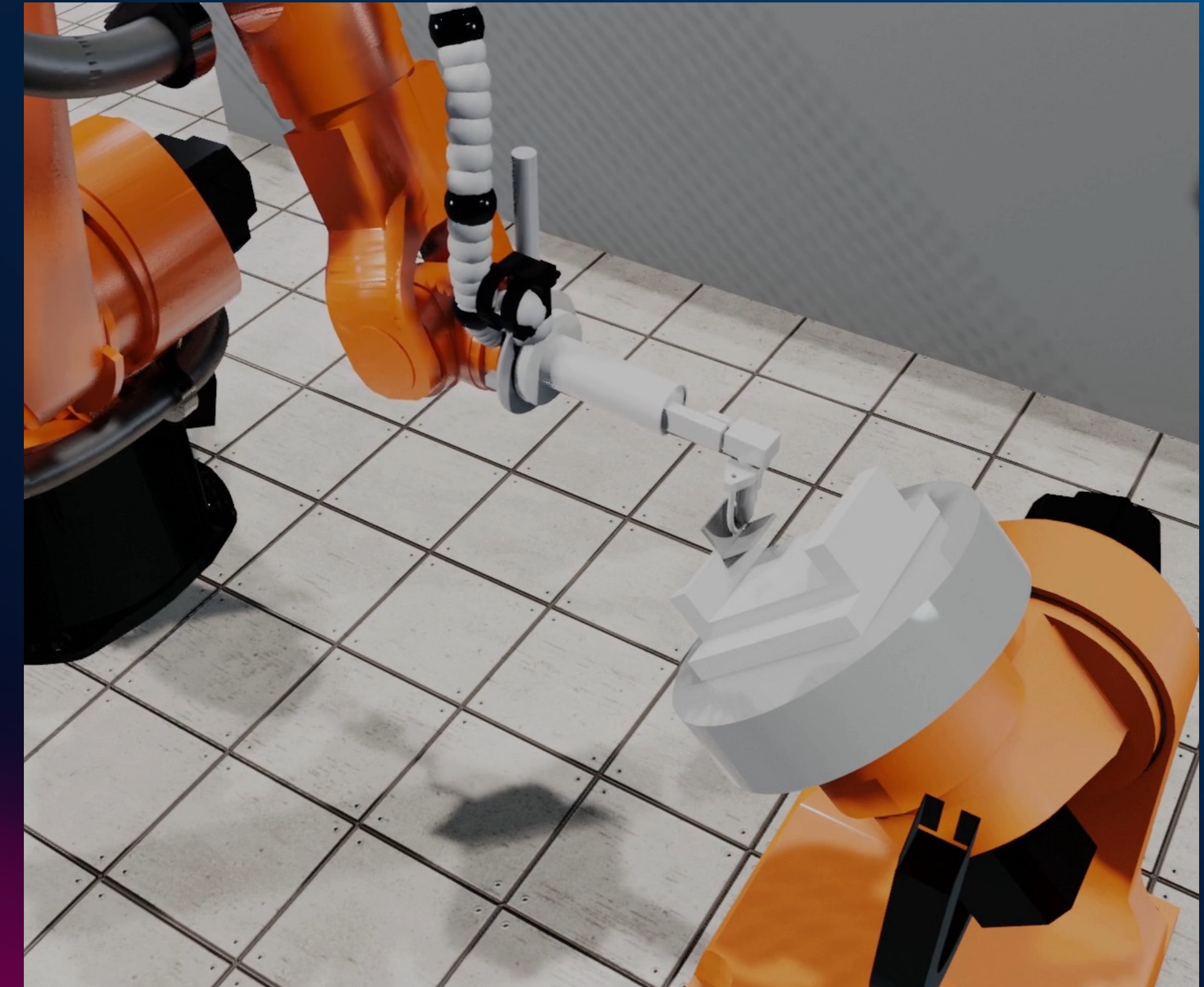
- Industrial robot arm
- It is recommended to have a rotary table
- A programmable welding torch



The TRINITY project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Software requirements

- Visual Components Premium (simulation software)
- An OPC UA server for communication



The TRINITY project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196

Preparation steps

- Physical installation of the system
 - Setting up the robot arm and rotary table
 - Installing the welding torch to the robot arm
- Setting up communication between machines
 - Establishing communication between the robot arm and welding equipment
 - Connecting Visual Components to the robot arm



Thank you.

If you are interested in more tutorials on this module or other use cases, please follow the links in the use case lectures.



trinity

 www.trinityrobotics.eu



The TRINITY project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 825196