

trinity

VIRTUAL REALITY PROGRAMMING OF A MANUFACTURING CELL

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

Purpose of the module

- This module shows how virtual reality (VR) technology can be used to program robot arms and mobile robots.
- Using VR to program robots can create a safe environment for re-programming and testing paper.
- The module can also be used for teaching of robot programming in a virtual environment



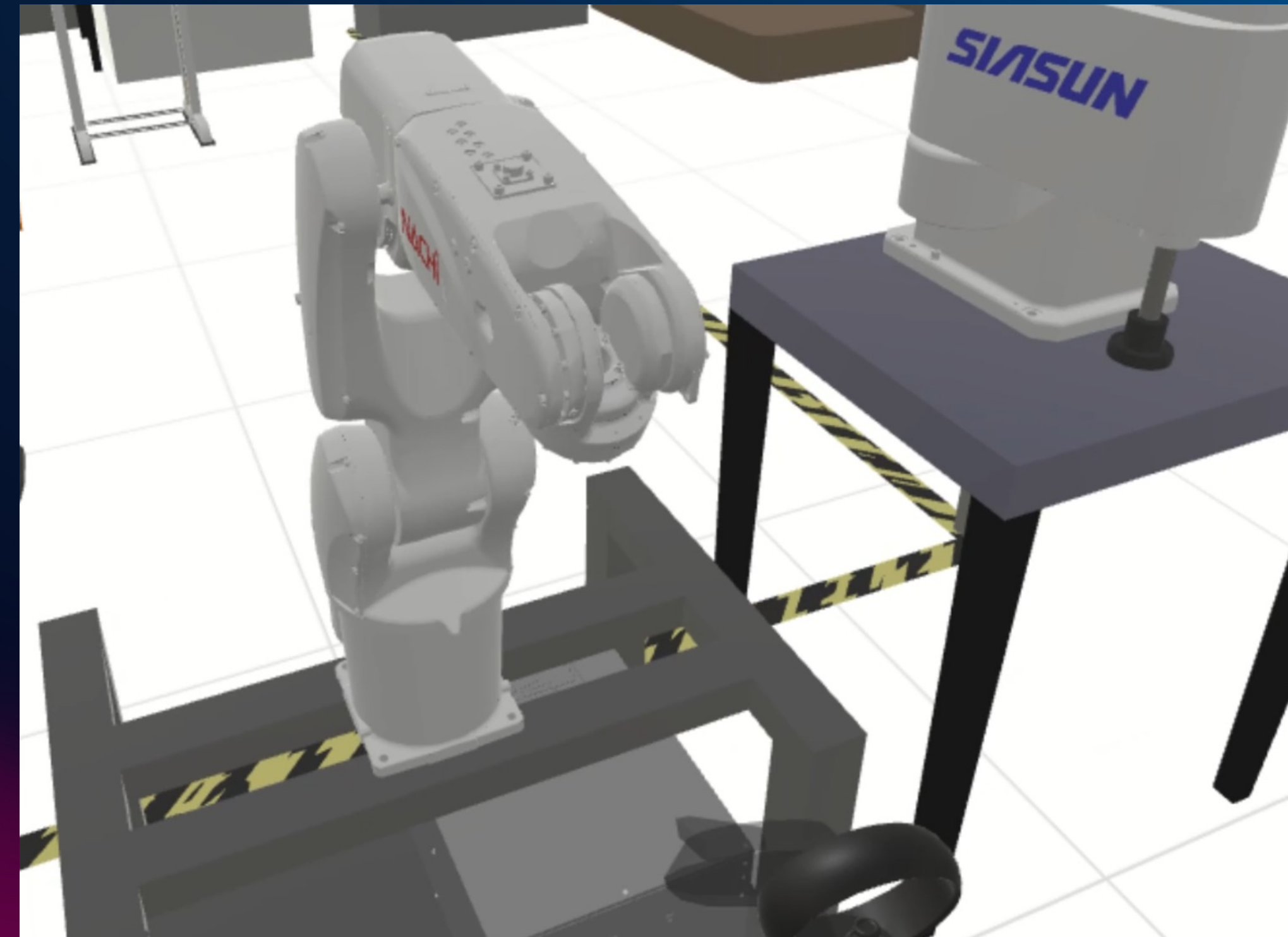
Hardware requirements

- Robot arm or/and mobile robot
 - The robot needs to support control from an external computer.
- VR headset
 - The headset needs to be compatible with Steam VR
- Computer



Software

- Visual Components Premium
- Scanning software from the mobile robot
- A program to translate from simulation software to robot movement
- OPC UA server for communication



VR programming in Visual Components



Environmental requirements

- This module requires an isolated place for the robot arm. The robot needs to be in a separate space and isolated from humans with a fence
- In addition, a separate room/space for the VR headset
 - The VR headset should not be



Integration

- This module can be used for teaching robot programming
- The module can also be used for re-programming of robots for fast configuration
- It can be integrated into a manufacturing environment as an add-on for an alternative method of robot control



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.



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