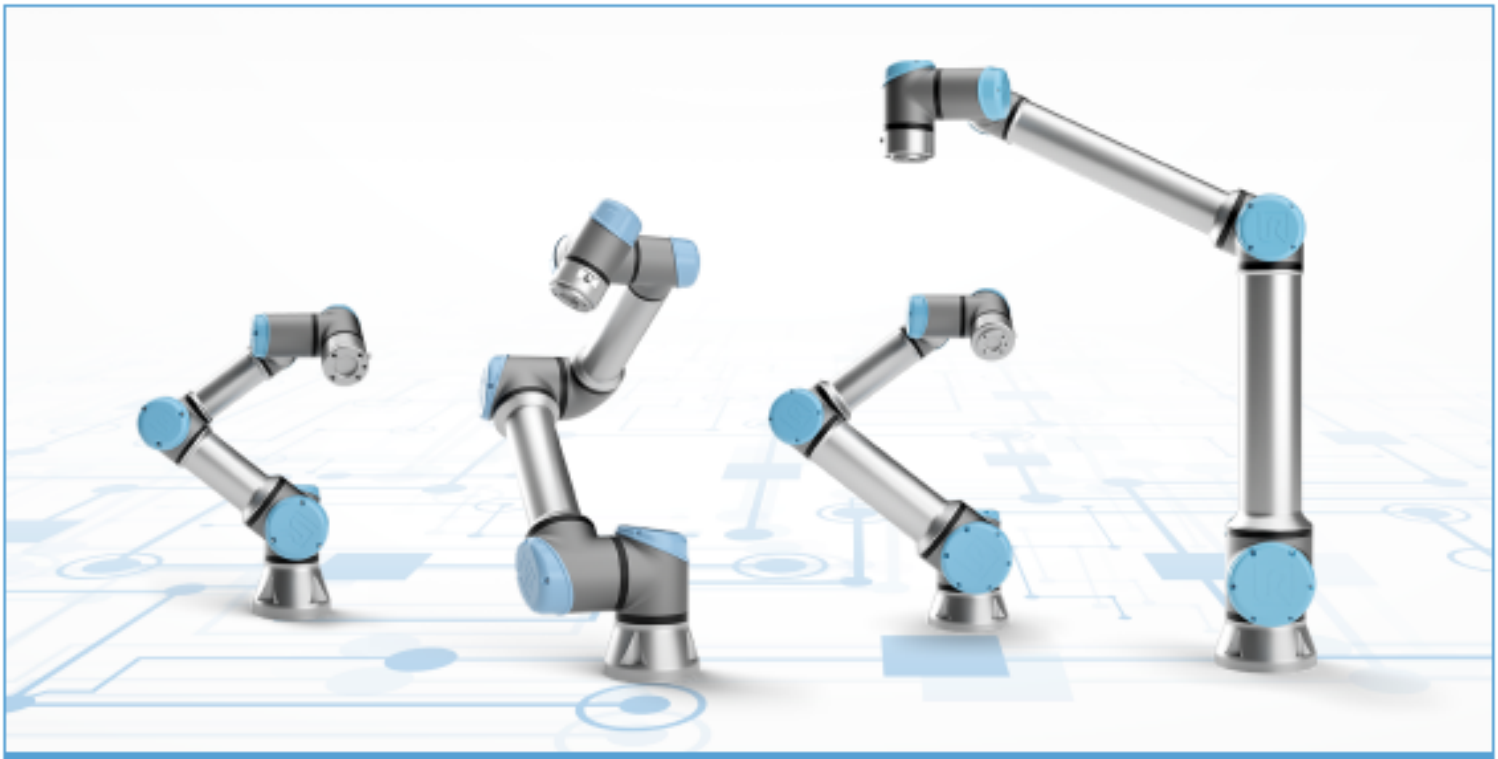

CERTIFICATE OF COMPLETION

EDUCATIONAL ROBOTICS TRAINING - CORE

Certificate number: E202409072172250
School name: Tec de Mty Campus Mty

David Torres Everest

13. September 2024

Universal Robots Academy

UNIVERSAL ROBOTS

CURRICULUM

David Torres Everest 13. September 2024

Module 1: e-Learning

- Online e-Series Core Track Modules 1-8

Module 2: Safety

- Basic knowledge about Robotic environments as it pertains to safety
    - Safety Sensors
    - Situational Awareness
    - Interactions between the robot and its surroundings

Module 3: Intro to Robotics

- Basic knowledge on the History of Robotics
- Traditional vs. Collaborative Robots
- An understanding of Robotics and Industry 4.0

Module 4: The Robotics World

- Basic knowledge on the different categories of Robots
- An understanding on the different types of Industrial Robots
- Understanding different applications / uses for Robots in different industries

Module 5: Getting Started

- Moving the robot by using the “Move” tab
- Knowledge about the I / O Connections and how-to setup
- How to configure the TCP, Payload, and Center of Gravity
- How to navigate the Polyscope GUI

Module 6: Operations and Motion

- Basic knowledge about singularities
- The different movement types and how to use them
    - MoveJ
    - MoveL
    - MoveP
    - MoveC
- How to configure a blend radius
- Configuration of speed and acceleration of movements and individual waypoints
- Apply skills acquired previously to an actual robot
    - Programming a Pick-and-Place application

Module 7: Pick and Place

- Types of Inputs and Outputs (I/O)
- How to wire up I/O
- Building a simple Pick and Place Application
- Understanding Pick, Place, Transit, Approach, and Exit Locations

Module 8: Programming

- Configuration and use of if-else commands
- Basic knowledge about variables
- How to program a subprogram
- Configuration and usage of switch-case commands

Module 9: Palletizing

- Configuration and usage of the palletizing template

Module 10: Features / Planes

- How to create a coordinate system (plane)
- How to program relative to a coordinate system

Module 11: Safety Settings

- Configuration and use of the available safety settings
    - Robot limits
    - Joint limits
    - Safety planes
    - Tool position
    - Direction
    - Configurable Inputs / Outputs
    - Safe Home

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