

Object Handling by Intelligent 3i-Gripper-Camera

Proprietary Robot Control Unit *Mrobot*

- 1 – 12 Motion Axis
- Powerful Interpolation Modes
- Sensor Control
- Realtime Grafical Simulation

Advanced Software Technology

- Combination of
 - model-based,
 - component-oriented,
 - object-orientedProgramming
- MATLAB Programming-Interface
- Improved Maintainability

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Intelligent 3i-Camera

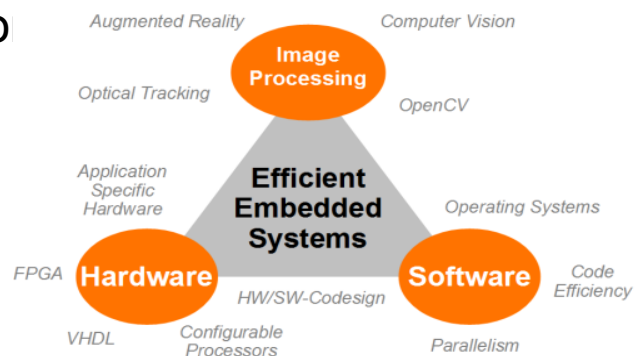


- Low-cost Camera, Equipped with an FPGA
- Intelligent Image Data Processing
- 3D Object Recognition Using Coded Markers



About Team: "Efficient Embedded Systems,, Team-Leader: Prof. Dr. Gundolf Kiefer

- Embedded Systems for Markerless 3D Object Recognition
- FPGA Development & Efficient Software
- Further Information:



<http://ees.informatik.hs-augsburg.de>



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Application:

Recognition and Handling of Workpieces by Using a 3i-Camera, Mounted to the Gripper

Demonstration:

- Cubes will be placed arbitrarily within the working space
- By applying a search process, the cubes are located and recognized.
- They will be piled up in a predefined sequence.

Context of the Project:

- The project is related to the European ECHORD-KANMAN Project,
- Prime Contractor is Schunk GmbH

