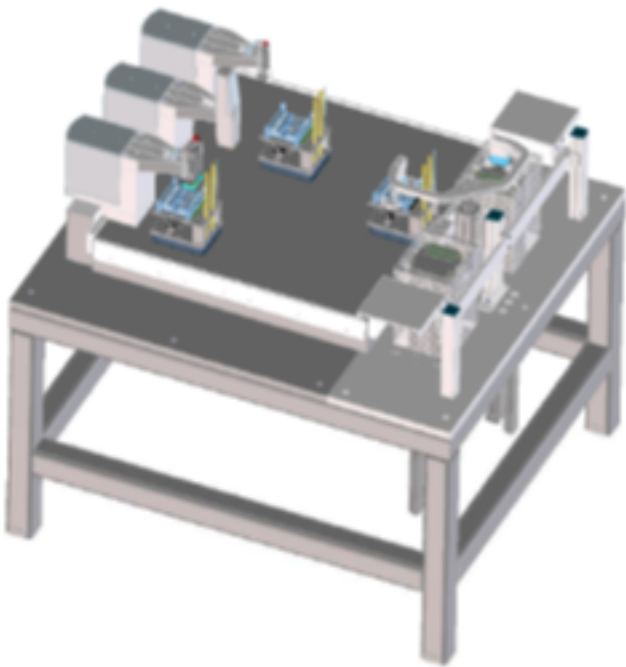


An important milestone of IDEAS was the completion of the pre-demonstrator. The aim of the pre-demonstrator was to show, that a system, consisting of mechatronic agents, is working stable in an industrial environment. The pre-demonstrator was designed to present a first version of IDEAS multiagent system (MAS) in order to use it as a test bed for the MAS architecture to support the further development of the architecture. To save time it was decided to use an existing system from FESTO and integrate the multiagent system into that system. The selected system Miniprod (miniaturised production system) is a miniaturised production platform with pluggable process units and a flexible, two-dimensional transportation system (see figure).

As controller platform the Combo200 a standard industrial PLC platform from ELREST was selected which is able to run JADE agents for the IDEAS MAS. Elrest further provided a library, which allows the JADE agents on the Combo200 to control the hardware I/O's of the controller directly.



[REDACTED]