RoboGames...

...is a school project of BBS1 Mainz. It is a part of an advanced education program for certificated technician automation enginnering. The students received orders to carry out a project. A project team was established, consisting of FSAPz (Fachschule Automatisierungs-technik, Prozessautomatisierung) and FSAPd (Fachschule Automatisierungstechnik, Produktionsautomatisierung) students within the same education level.

Initial Situation:

It is about a mechatronical production system where workpieces are transported on a band-conveyor to several stations (material detection and drill).
Already available:
Magazine, testing station (material detection), rotary disc, band-conveyor and an industrial robot.

In order to manage the above mentioned topics we divided into 5 groups:

Group 1: Mike Janetzko & Michael Wiedemann
Group 2: Benjamin Freund & Tobias Trost
Group 3: Thomas Withauer & Ralf Müller
Group 4: Björn Graikowski & Jane Gottenbusch
Group 5: Sascha Rehm & Marco Palme

Content/ Compotencies

- Industrial plant-automation in networks with Profinet und Industrial Ethernet
- Integration and communication between two panel-controlled industrial robots
- Development of switch cabinet approaches
- Master- Master- Communication
- Development of material- und communication flow (9 stations)
- panel-controlled drives
- Integration of ET 200S
- Remote maintance via Internet and GSM connection
- Operate and monitor of subprocess also with TP
- Methods of project planning
- Establish a intermediat presentation with PowerPoint

- Publication via Homepage
- Presentation of the project and documentation

Project idea / Target:
It´s our target to develop a mechatronical production system with 2 industrial robots which is able to place chess

Pieces on a chess board:
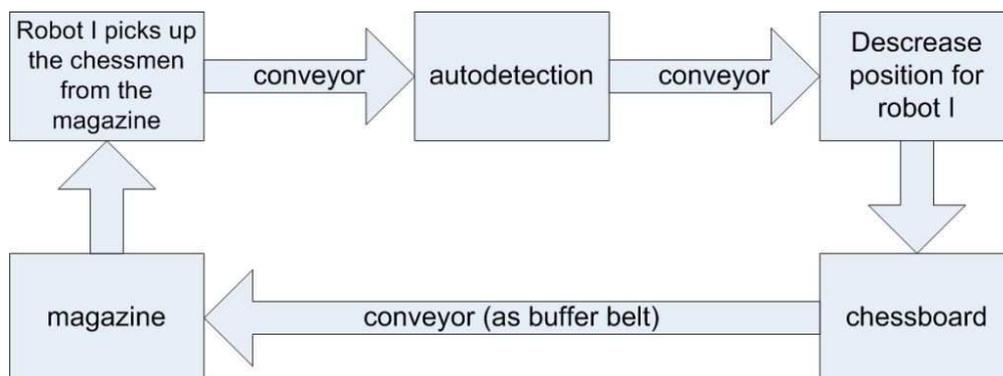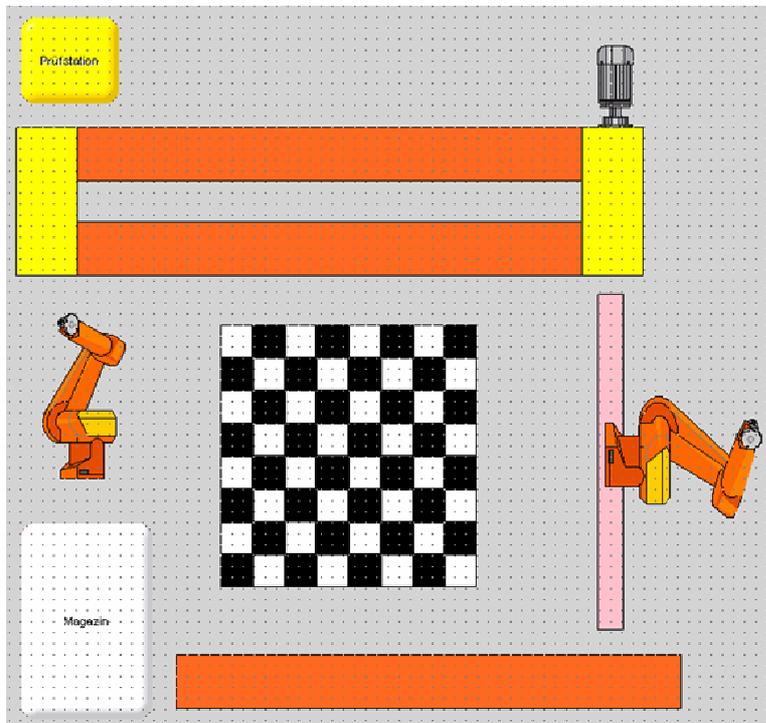
- Magazine needs to be rebuild so that the chess pieces will fit
- Material detection needs to rebuild, so that colour and shape of chess figures are identified
- A 2nd robot for placing pieces on the chess board is needed
- chess board (incl. LED- lightning) and chess figures are required
- 2nd band-conveyor, which should help clearing the chess board is required remove drill
- build required switchboards
- Programming components of the equipment
- The bus communication must be installed and commisioned
- In the end visualize the equipment with „Visu+"