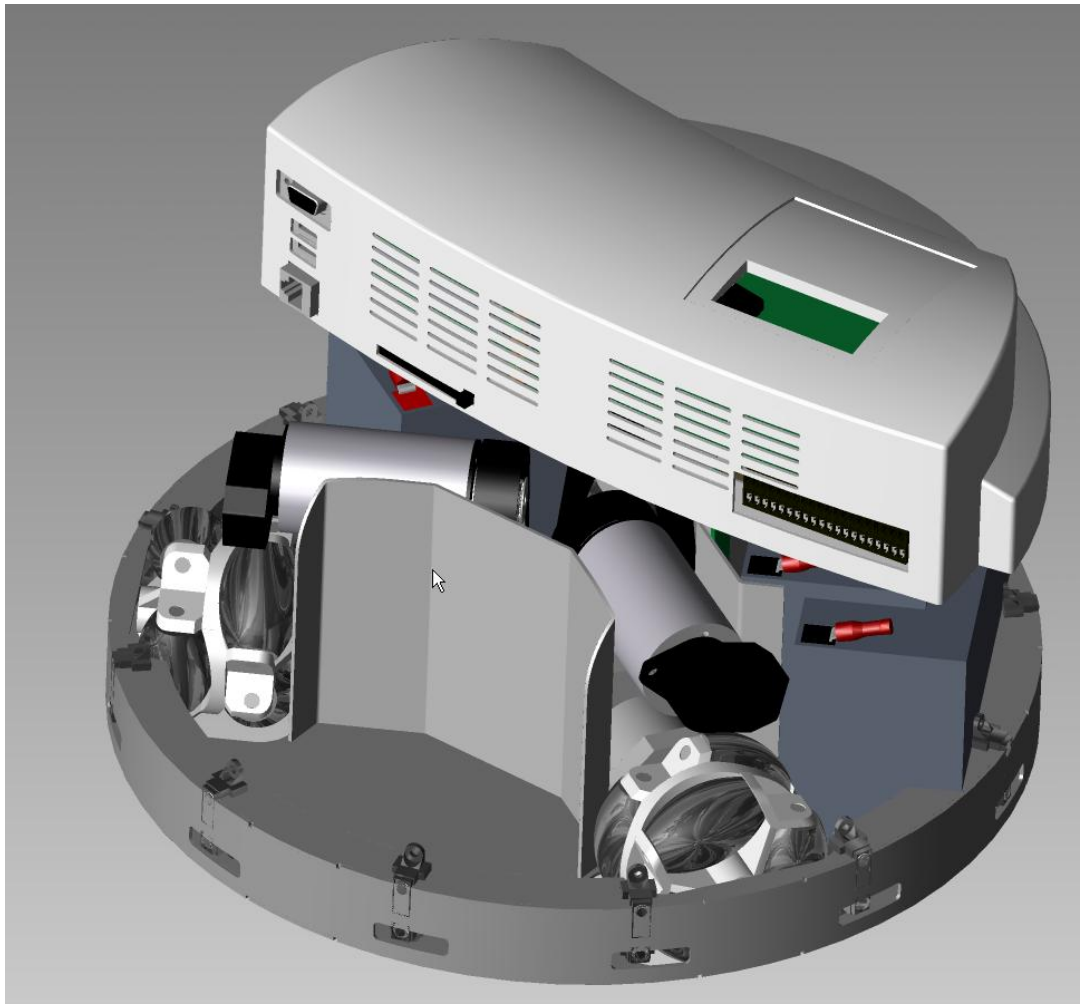
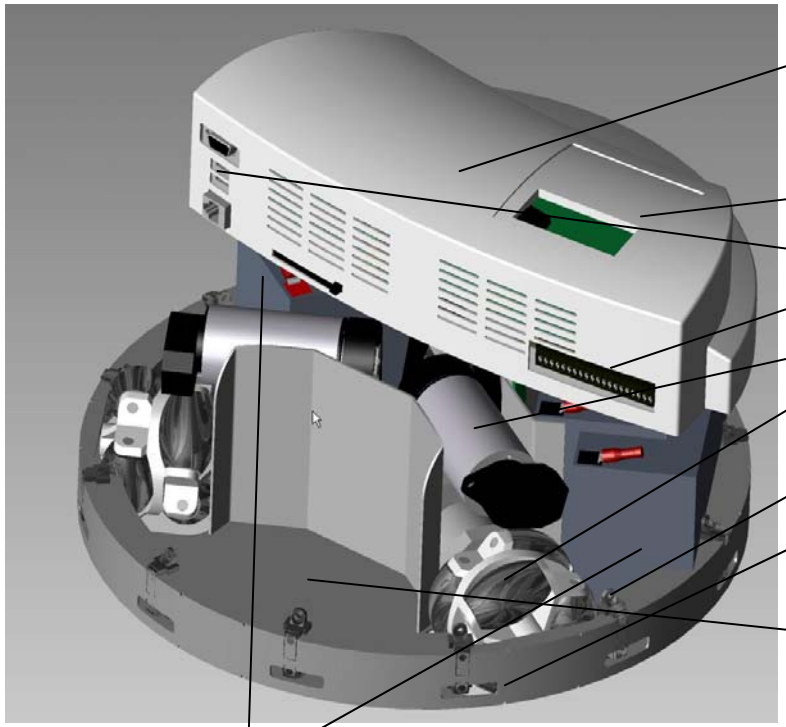
Robotino®

Size:

- Diameter of chassis: 350 mm
- Height: 200 mm
  (without camera)
- Weight: about 6.5 kg

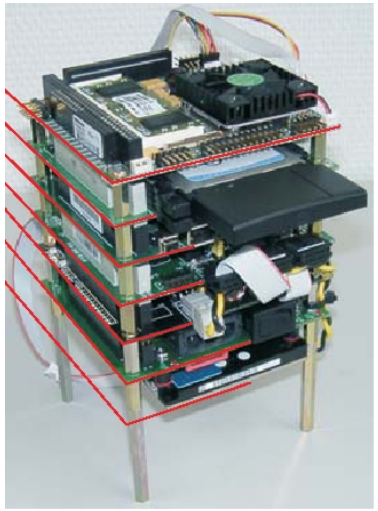


Robotino®



- PC 104 controller with I/O motor interface card
- Real-time Linux as operating system on PC 104
- User panel with display
- Sockets for Ethernet, serial interface, I/O card
- 3 motors with transmission (1:16) and omnidirectional wheels
- 9 distance sensors
- bumper protection sensor
- camera (picture does not show the camera)
- Platform for integration of further sensors or handling systems. Components can be easily connected to the controller via the socket of the I/O interface card
- Accumulators for 24 V

Robotino® - Controller



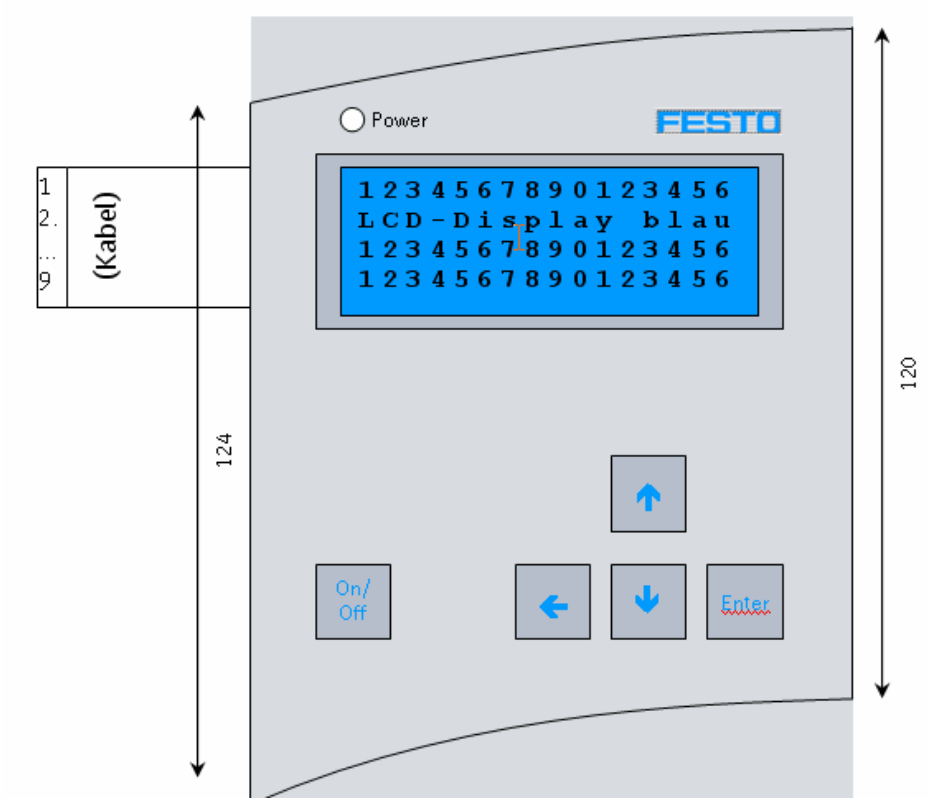
- Controller can be flexible built up by various cards.
- Basic version includes 3 cards
- PC 104 processor compatible to MOPSlcdVE mit 300 MHz with Linux operating system with realtime kernel
- SDRAM 64 MB
- Compact flash card (128 MB) with C++ operating system for drive system
- Wireless LAN interface
- Interfaces: Ethernet, 2 x USB, 2 x RS232, Keyboard and mouse, parallel port

I/O interface card:

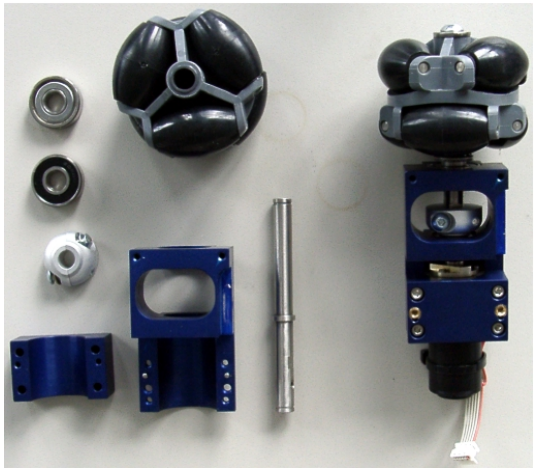
- outputs for controlling the 3 omnidirectional drive units incl. PID controller
- 10 analogius inputs (0-10 V, 50 Hz)
- 2 analogous outputs
- 16 digital inputs (can be switched to outputs)
- 3 relays
- power voltage

Robotino® - Control Panel

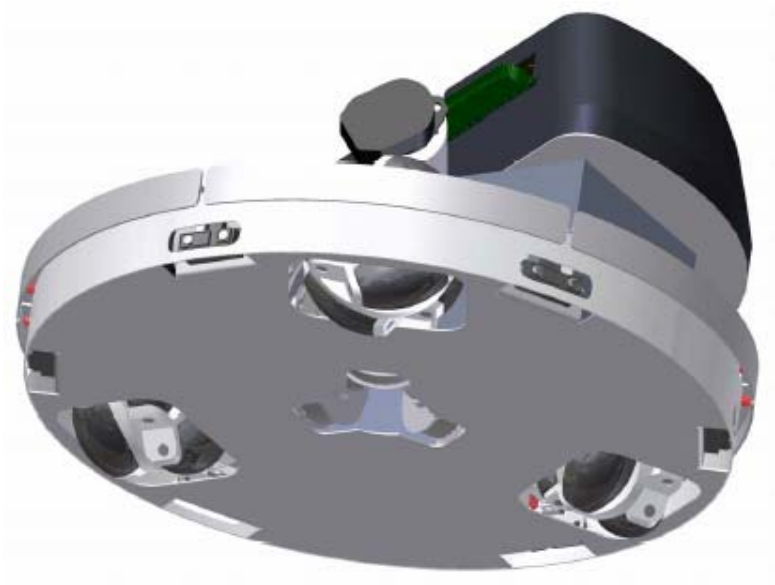
- Booting of robot controller
- Selection of language (DE,EN,ES,FR)
- Status information about running system (e.g. sensor data, etc.)
- Status of accumulators
- Network configuration
- Selection of Demo applications



Robotino® - Drive System



- Motor (Dunker motor, 3600 rpm) with encoder
- Transmission (adjustable from 1:4 up to 1:16)
- Omnidirectional wheel (diameter: 80 mm)



Robotino® - Sensors & Add-Ons

Sensors:

- 9 analogous distance sensor
- Bumper with integrated sensor
- WebCam Camera with USB interface. WebCam can be flexible adjusted.
- Optional: Integration of a high performance camera
- Optional: inductive and optical sensors for further experiments
- Optional: magnet field sensor

Technical Data:

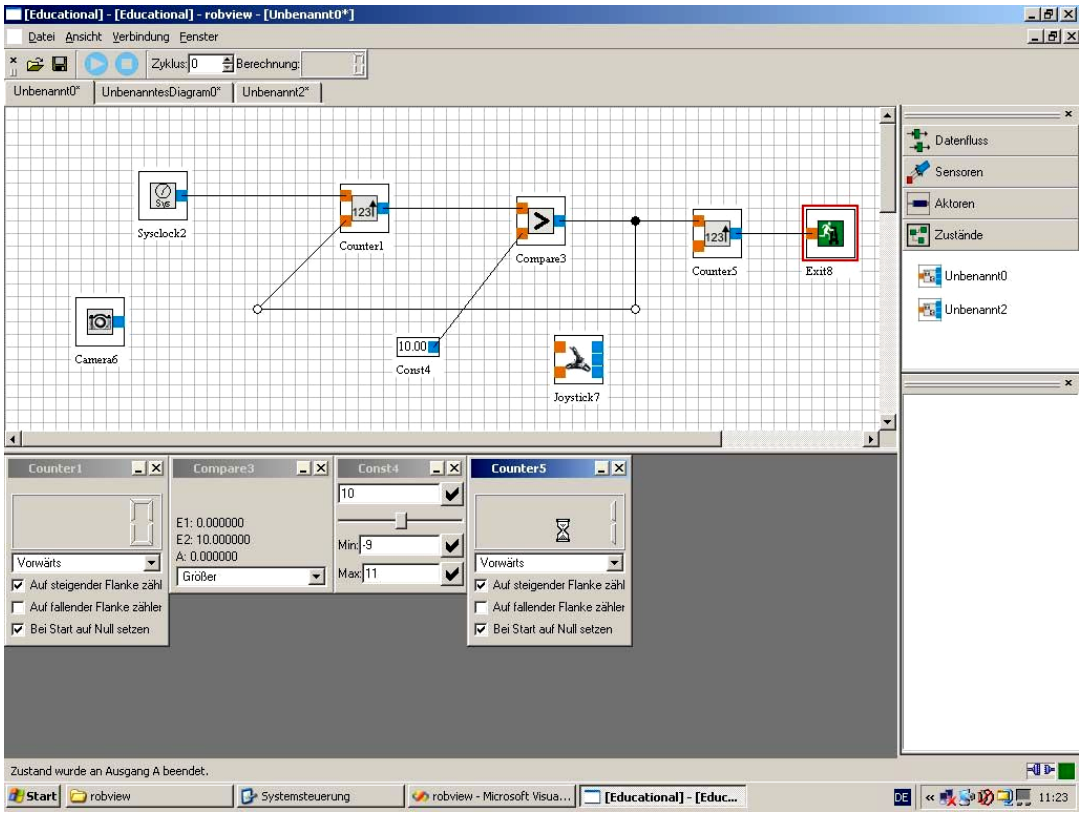
- Optional: additional set of accumulators
- Docking station for the robot with integrating power loading for the accumulators
- Payload of the robot: at least 5 kg
- Optional: various types of handling system
- Optional: unit for playing soccer for robocup

Robotino®View - Graphic user interface for easy Programming

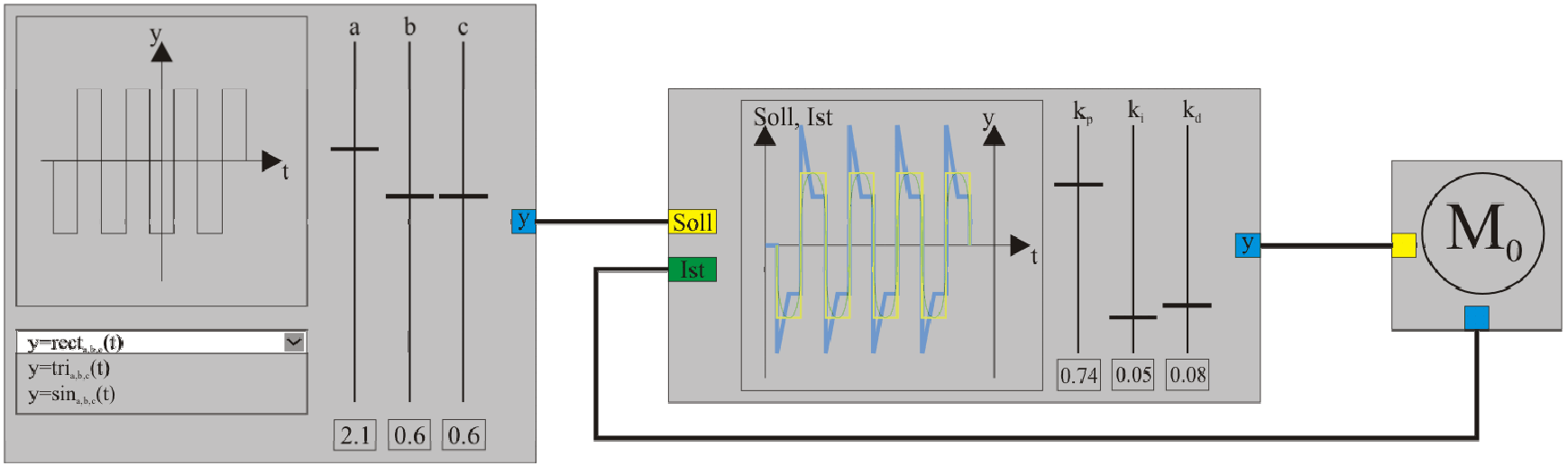
Robotino®View runs on Windows PC (Windows 2000/XP).
It interacts directly via Wireless LAN with the mobile robot system without compilation.

Comprehensive library of state blocks to connect to new state diagrams.

Can create new state blocks.



Robotino®View – Example



Define the desired signal

Set interacively the parameters

PID motor control directly with the hardware

- Can run parallel various state diagrams

Robotino®

Basic level:

- Setting up of mechatronic systems
- Sensor applications
- Electric motor control
- Electric drives
- Closed loop control of mechantronic systems
- Graphical programming of mobile robot applications
- Introduction to vision system

Advanced level:

- Programming in C++, Visual Basic of mobile robot applications
- Remote control
- Integration of vision systems
- Programming of autonomous navigation behaviour