

Team Carinthia University of Applied Sciences, Villach, Austria
TeenSize Humanoid League
Name: HWM

1) Number of Degrees of freedom: 14

2) Type of Motors: DC Motors with gears

MCB – Motor Control Board

- Infineon XC167
- 2 H-Bridges
- 4 Encoder Inputs
- Selectable CAN or RS485 Interface
- Single 12V Supply

3) Computing unit:

Compulab Industrial PC (PC104 / SB-i586)

- 133 Mhz
- 32 MB Flash-ROM
- 32 MB RAM
- Realtime OS: INtime
- WLAN Access Point
- RS485 Interface
- Single 12V Supply

4) Camera

IPU – Image Processing Unit

- Compact Vision System (National Instruments)
- Sony Firewire Camera DFW-VL500

5) Sensors

IMU – Inertial Measurement Unit

- Microchip dsPIC-30F4011
- 2 Acceleration Sensors
- 2 Gyro-Sensor
- Selectable CAN or RS485 Interface
- Single 6V Supply

FSU– Force Sensing Unit

- Microchip dsPIC-30F4011
- 8 Force Sensors – Vishay Strain Gages
- Selectable CAN or RS485 Interface
- Single 6V Supply

6) Other Specs

CIF – Communication Interface

- High-Speed-Serial-RS485-interface (1.152Mbps)

PSU – Power Supply Unit

- Microchip dsPIC-30F4011
- Battery Status Display
- Selectable CAN or RS485 Interface
- Li-Ion Akku Pack: 29V / 6.8Ah
- Input Voltage Range: 18V – 30V
- Output Voltages: 6V / 3A; 12V / 2A; 24V / 10A

