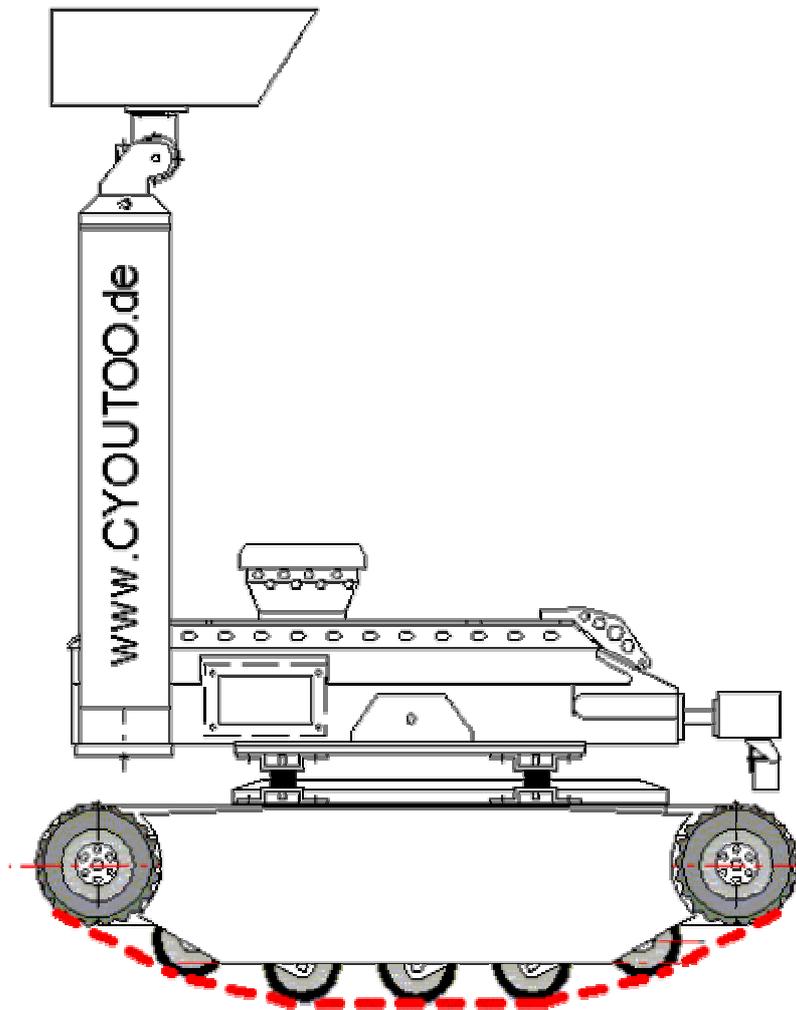


CYOUTOO Data Sheet



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preamble/comment

CYOUTOO is as an experimental space for engineering, electronics and software development respectively on the path to a security robot in the flux constantly. While tests for new controls and adjustments of the chassis development (CU-CHAIN-CHASSIS) the performance characteristics and functions are varied or extended analogical to them.

history

modification 05.04.2008

The drive and the operational voltage are changed to use the robot in long-term operation via www while inventing a new engine control.

modification 26.01.2008

A 868 Mhz radio link system was successfully tested as completion to the control via wire. So the user is able to telecommand the robot across long distances even when the circumstances for the radio link are bad.

modification 20.10.2007

The control via internet is used as main control via LAN or WLAN. At the same time the robot can be used as an information system. The control works even via mobile telephone (GPRS/UMTS). The extension of the control via internet to a control center with considerably functions is planned.

modification 20.10.2007

The color CCD-camera that has been used to date was replaced by a monochrome-camera with better night vision features. In this case a zoom lens was attached that is tough regulated via servo but will finally be only used to scale the camera angle.

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technical data

weight: 45 kg
speed: 5 km/h or 7 km/h, max. 10 km/h
length: 65 cm
width: 47 cm
height: 80 cm
ground clearance: 7,5 cm
climbing performance: 40%
temperature-resistant: -10° C to + 60° C
electric power supply: 12 Volt/48 Ah or 24 Volt/24 Ah

control:

- W-LAN/LAN
- via wire
- via internet (computer, mobile phone, PDA)
- radio link system, frequency: 868,19 Mhz (possible frequency range: 868 Mhz to 870 Mhz)
- autopilot (half autonomous handling)

features:

- weatherproof
- all-terrain
- low noise (average noise level: 35 db (A))
- mobile use up to 8 hours (4 hours in full activity)
- audio and video transmission and recording

chassis:

- spring-loaded steel track chassis
- steel frame with aluminum covering
- bearing rollers

drive:

type: two electric motors
power: 200 Watt

central computer:

- Windows 2K/XP
- 1x AMD processor 1,4 Ghz
- RAM: 512 MB
- hard disc: 60 GB

- free data links: upgradeable USB, 1 x parallel interface, Game, RJ45

supporting systems:

- 4 x ATmega32 Risc processors 16 Mhz
- data links: I2C, RS232
- free ports (altogether): 11 x AD-Ports, 30 x I/O, 4 x PWM and so on

navigation/sensors:

- GPS (Chipset SiRF Star III)
- infrared
- ultrasonic
- compass (compensating dispositions)
- Pitch-Rolling
- PIR-sensors

actuators:

- controllable camera optimized for darkness

miscellaneous:

- main power: 12 to 24 Volt
- additional voltage: 5V, 12V
- extendable Embedded-Computer-System
- loudspeakers
- filtered ventilation system
- vehicle payload up to 25 kg
- internal charging device (optional)

This document is part of the project by [CYOUTOO](#)
UlrichC.DE. Other documents and construction
documents and images to the project are on the website
<http://www.ulrichc.de/>
available for download.

