



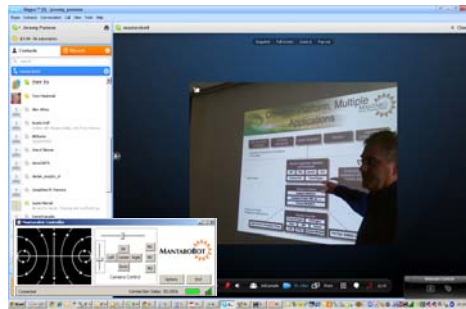
MantaroBot TelePresence Robot Datasheet

What is Mantarobot?

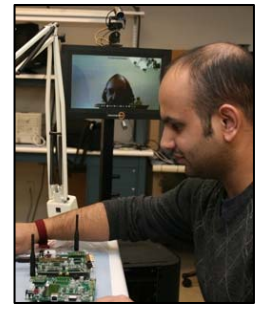
- It is a new, low priced, remote controlled telepresence robot
- It gives a user the ability to engage with people at locations they cannot travel to
- It is low cost, flexible and easy to operate
- It is aimed at people who travel too much and who want to travel less, saving cost and environment
- It benefits organizations that want to give alternative access to disabled or remote users
- It allows organizations to inspect a remote site without sending someone out
- It is aimed at education and training organizations with remote staff, lecturers or customers



Attend meetings and events remotely



Remote Educational Access



Tour factories



Check buildings and assets



Reduce Travel



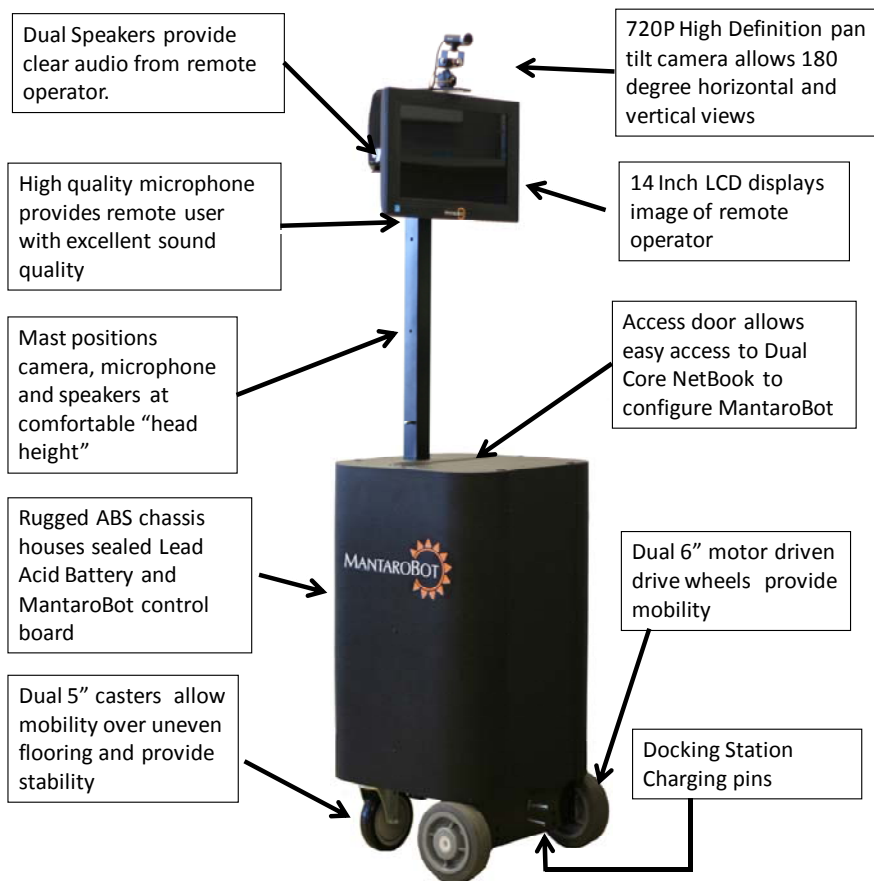
Improve Disabled / Remote access to galleries & museums

Applications

- Quickly "visit" customers or staff to give assistance
- Attend meetings and events while working from home
- Education - View and discuss "whiteboard" interactions
- Check building access violations without driving to work
- Tour laboratories, factory floors or field offices
- Provide customer TelePresence tour of facilities
- Allow patients to "virtually" be at home and interact with family
- Visit art galleries, museums, cultural and sporting events

Benefits

- Teleconferencing capability not limited to one room or setting
- Visit a location on your schedule at any time of the day
- Eliminate travel time and cost to attend meetings or visit remote facilities
- Increase frequency of "visits" to remote or branch offices
- Provide safe TelePresence tours of factory floors
- Customer presales presentations & facility tours



The MantaroBot™ is controlled from the remote user's PC via a simple control screen.

Once a Skype™ call is made to the MantaroBot™ the user takes control and can move, see, talk, listen and point (using the laser pointer). The user can direct the MantaroBot™ to move within the location and can control the camera to tilt and pan as desired.

Typical View seen on the User's PC with Mantarobot view, control panel and Skype connection window

Features

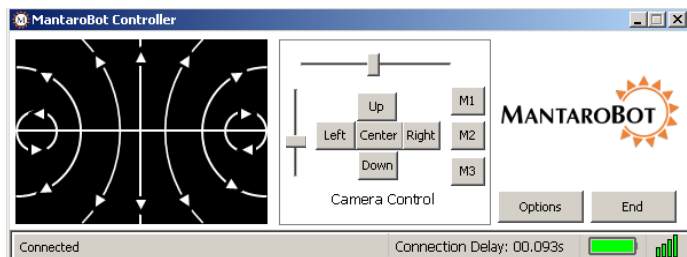
- Plug-in application that works with Skype™ for easy and intuitive control for driving MantaroBot™
- Control Application connects through firewalls and NAT anywhere a Skype™ call can be made
- High Definition Camera with Pan and Tilt control
- Red Laser pointer mounted on the Pan and Tilt control with Camera
- Obstacle detecting infrared sensors that automatically reduce speed when obstacle is detected
- Tip detection using three axis accelerometer with automatic stop to prevent tip-over
- High quality speakers and USB microphone provides excellent sound quality
- Auto-answer with password protection access control
- Dedicated Netbook computer provides local control interface and display
- Automatic communication link monitoring stops MantaroBot™ if communication link fails
- Docking Station™ Accessory allows unattended charging



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MantaroBot™ Control User Interface

The MantaroBot™ is controlled by the remote user via a control application that communicates with the MantaroBot™ whenever a Skype™ connection to the MantaroBot™ is established. The control interface is designed as a small control panel that provides separate control interfaces for the movement of the MantaroBot™ and control of the camera.



The MantaroBot™ control interface also provides important status information of the MantaroBot including the condition of the communications link, Wifi signal strength, offline/online status as well as the battery charge state.

The Direction Control Pad allows the user to smoothly navigate the MantaroBot™ in the remote location by moving the mouse over various areas of the Control Pad.

The Direction Control Pad also features an obstacle avoidance alert. When obstacles are detected near the MantaroBot™ a light area appears on the Control Pad in the vicinity of the object. This allows objects that may not be in camera view to be avoided.

The camera position can also be controlled from the keyboard or through the use of three memory buttons that can be programmed to position the camera in a single click.

Bottom status bar also provides status messages to confirm actions or alert of conditions such as tip alerts.

Software Specifications

Remote User Requirements

- Windows XP or Windows 7
- Skype™ Version 5.1 or newer
- MantaroBot™ Control Application

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Hardware Specifications

Battery

- 12V - 15Ah rechargeable Lead Acid Battery
- Battery life 4 hours plus (typical use)
- Optional 12V – 10Ah LiFePO4 long life battery
- Power Saving Mode for even longer battery life
- AC Adapter for charging

Camera & Display

- Pan and Tilt camera supports up to 720p HD Widescreen Video (depends on link quality)
- Camera mounted on an adjustable 5 foot mast with 7 inch steps providing good visibility, eye contact and flexibility
- 14" LED backlit Monitor (1366 x 768)

Speakers & Microphone

- Two 1.2W Speakers
- Digital microphone

Infrared Obstacle Detection

- Four (4) Infrared optical transceivers for obstacle detection

Netbook Computer

- Includes Netbook computer loaded with MantaroBot™ host control application
- Netbook specs: Intel Atom N550 Dual Core

MCU and Motor Controller

- Micro-controller processor drives motors, pan/tilt camera and infrared sensors
- Solid-state Accelerometer for tip detection
- Expansion capability through programmable GPIO and ADC ports

Drive Motors & Wheel Encoders

- Two independently controlled motors provide up to 1.5 miles per hour forward speed
- Wheel encoders provide better driving control

Optional Accessories

- Docking Station (for charging)
- Motorized Mast – Allows remote user to quickly adjust height of camera and display to best suite the situation
- Red Laser Pointer – mounted on Pan/Tilt control with camera

UK Distributor

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