



## MantaroBot™ TeleMe TelePresence Robot Datasheet

### MantaroBot TeleMe Overview

The MantaroBot™ TeleMe TelePresence Robot is a mobile platform where you can plug in your own Apple® devices or Android™ Tablet. The TeleMe is controlled via an application that can be used along side many audio/video conferencing applications. The control application allows a user to remotely interact with co-workers, and associates and their environment. The telepresence system provides a level of interactivity which is not present with traditional “call-in” video conference. The user can move around the room and observe participants through the tablet’s camera, allowing more effective communication. The user will be able to view live activities, meetings or hold one-on-one meetings. Provided they have a Windows PC, Mac, or a device with a modern web-browser and a network connection, any user can access the TeleMe TelePresence Robot.



TeleMe™

The TeleMe requires no supervision excluding initial power-on. Onsite participants are able to communicate with the offsite user through the Tablet’s built in microphone, speaker, display, and camera. Bluetooth headphones (not included) can be used in noisy environments. The robot is based around an embedded computer that controls the movements. The TeleMe is Wi-Fi enabled and communicates with a wireless router. Any choice of audio/video conferencing application (e.g. Skype™, Google Hangouts™, Cisco®, Polycom®) runs on the tablet providing high quality audio and video. A control interface runs on the user’s computer or web-browser allowing full control of the TeleMe and completes the audio/video call-in platform. The TeleMe also features the ability to pan(optional) and tilt the tablet via the control interface providing a wide visual range and acuity.



#### Features

- Desktop control application or web-controller can be used along side any audio/video conferencing applications for easy and intuitive control for driving TeleMe.
- Application can control TeleMe using 3 choices of robot control paths: WebRTC, direct socket connection, or MantaroBot Communications Service (cloud service). Can also work on 802.1X networks that require security certificate.
- Holders currently available for the following: iPad®, iPhone®, Galaxy TAB™. (Tablet/smartphone not included.)
- Mast with optional motorized pan capability
- Red Laser pointer mounted on holder with tilt and optional pan
- 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
- Multi-WiFi radio option for better connectivity.
- Automatic communication link monitoring stops TeleMe if communication link fails
- Docking Station Accessory allows unattended charging

#### Applications

- Hold a video teleconference in any location, not just in a conference room
- Interact with business associates and drive around in their environment
- Allows virtual attendance to events such as meetings, gatherings, or weddings
- Tour engineering labs or factory floors
- Hold impromptu meetings to discuss current issues on factory floors or in engineering labs
- Attend meetings while working from home
- Visit remote offices for team or one-on-one meetings
- Visit family members at home or at elderly care facilities
- Remote customer service at hotels or shopping centers

#### Benefits

- Reduce travel cost to visit remote facilities
- Eliminate travel time to attend meetings
- Increase frequency of “visits” to remote or branch offices
- Provide safe TelePresence tours of factory floors
- Customer presales presentations & facility tours

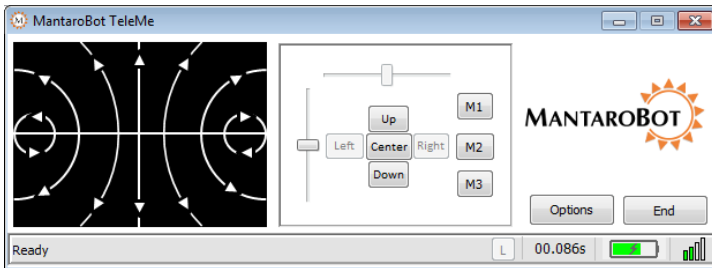




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## MantaroBot TeleMe Control User Interface

The MantaroBot TeleMe is controlled by the remote user via a control application that communicates with the TeleMe over a WebRTC, direct socket, or MantaroBot Communications Service connection to the TeleMe. The control interface is designed as a small control panel that provides separate control interfaces for the movement of the TeleMe and pan/tilt of the tablet's integrated camera. A web-based controller is also available.



The TeleMe control interface also provides important status information of the TeleMe including the condition of the communications link, WiFi signal strength, offline/online status as well as the battery charge state of the robot. (Note: It does not provide battery charge state for the actual tablet itself.)

The Drive Motor Control Pad allows the user to smoothly navigate the TeleMe in the remote location by moving the mouse over various areas of the Control Pad.

The Drive Motor Control Pad also features an obstacle avoidance alert. When obstacles are detected near the TeleMe a shaded bar 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 tablet and its camera can be tilted/panned using the control panel or via keyboard controls.

## Software Specifications

### Remote User Requirements

- Windows® XP, 7 or 8.x for MantaroBot™ Control Application
- Modern web-browser for web-based MantaroBot controller (WebRTC supported web-browser required for WebRTC control path)

## Hardware Specifications

### Battery / Power

- 12V - 8Ah rechargeable Lead Acid Battery
- Battery life 8 hours (typical use)
- Power Saving Mode for even longer battery life
- AC Adapter for charging
- Tablet or smartphone will also be charged when TeleMe is plugged into its charger
- Optional extended life battery available (see below)
- Optional docking station for charging

### Tablet Holder

- Tablet holder "tilt" servo allows 85° down, 45° up viewing

### Infrared Obstacle Detection

- Two Infrared optical transceivers for obstacle detection
  - one near left wheel, one near right wheel

### Control Board

- Includes embedded computer loaded with TeleMe host control application

### MCU and Motor Controller

- Micro-controller processor drives motors, tilt servo and infrared sensors
- Solid-state accelerometer for tip detection
- Expansion capability through programmable GPIO and ADC ports

### Drive Motors

- Two independently controlled motors provide up to 1.4 miles per hour forward speed

### Options (see website for latest option list)

- Available holders for the following tablets and smartphones: (one standard holder included with initial order, additional can be ordered)
  - Apple iPad (Portrait / Landscape), iPhone (Portrait)
  - Samsung Galaxy TAB 10.1 (Landscape)
  - Landscape holders are required when audio/video application does not support portrait (e.g. Polycom or Cisco Jabber)
  - Others available upon request
- Red Laser Pointer – mounted on tilt/optional pan holder
- Mast with Motorized Pan allows +/- 90° pan
- Multi-WiFi radio option for better connectivity
- Docking Station (for charging)
- Kensington Lock adapter
- Shirt / dress hanger
- 12V – 10Ah LiFePO4 extended life battery

