



roboMate Ltd uses an Italian technology, developed specifically for healthcare needs.

The ***roboMate*** platform together with the Robots of Softbank Robotics makes it possible to monitor patients hospitalized and affected by Covid-19, significantly limiting the risks for medical and healthcare personnel, and reducing costs in protection material.

roboMate and Pepper robot supports and replaces healthcare personnel in assisting patients with Covid-19, one robot for two to three patients in remote telepresence.

Remote Control Robot Therapy and Telemedicine

Doctor @Home



Control your Robot to patient's room
(Robot video/audio streaming)



Engage and execute on Robot
therapy and exercises



Monitor executed therapy and patient's
e-Health data in real-time



INTERNET VPN
Wireless LAN



INTERNET VPN
Wireless LAN



ROBOMATE

Robot @Hospital



Remote control for
indoor navigation



Remote dialogue with
the patient through Robot



Remote execution of therapy
and data collecting

The robots compatible with the software platform are NAO and **Pepper** developed by Softbank Robotics Europe, in particular in the use case indicated, **Pepper** is used, a robot equipped with Wi-Fi connectivity, Tablet integrated on the chest, microphones, speakers and cameras, which is remotely controllable by an operator who is in a safe and remote control station, thus creating a real "telepresence".

In this way, thanks to the use of an iPad and the *roboMate* app installed, the doctor from another place will be able to guide the robot through the corridors to the patient's bed.

The robots enter the rooms and allow remote monitoring: thanks to the camera they are equipped with, in fact, the staff sees the patient and the monitor they have next to them without physically accessing the room, thus reducing the consumption of protective devices, overalls, masks, gloves and preparation and dressing time, not exposing health personnel to the danger of infection.



These cute-looking and child-sized robots, about 120 CM tall (Pepper), with an autonomy of 12 hours (Pepper), are also equipped with a reflected humanity, in fact doctors and nurses can talk to the patient if is able to respond and make the robot express emotions and feelings.

In addition, the robot, through the *roboMate* platform, facilitates psychological support for hospitalized patients in areas at high risk of infection, provided by a remotely connected professional and can also provide specific tests and exercises for cognitive behavioral rehabilitation on behalf of the doctor.

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Leave your robot execute therapy alone with **A-RAT**



Autonomous
Robot Assisted Therapy

No remote control needed

Start and execute exercises

Patient data profiling

Exercise data recording

ABA based approach



ROBOMATE

Thanks to the software it is equipped with, ensuring adequate privacy, it allows the patient to talk to the psychologist who, being at a distance, will not have to wear protections like masks that constitute an impediment to empathic communication and will be free to express himself and communicate in a way direct.



Other characteristics:

- Possibility of integration with wearable devices for patient data acquisition (EEG, ECG) with Bluetooth technology. The robot acquires local data from the patient and sends it to the **roboMate** App in real time.
- Possibility of integration with any device that sends LSL streams (Lab Streaming Layer)
- Storage of information received from biosensors on **roboMate** Cloud architecture for subsequent analysis and correlations with activities contextually performed in the cognitive behavioral field.

Here are the basic technical prerequisites for the solution to work:

- High performance, low latency Wi-Fi (2.4Ghz / 5Ghz) connectivity in the wards of the relevant hospital units and in the areas of interaction of the Robot.
- Virtual Private Network (VPN) for iPad access from the outside to the local network of the hospital facility in case you intend to control the robot from locations outside the medical facility.

Product	Description
SoftBank Pepper	Humanoid robot
Pepper charging base	Robot charging base for auto charging
iPad 7 th Gen.	Tablet for remote control, patient monitor and therapy cognitive behavior execution
roboMate App for iPad	roboMate Software Platform App + 1 user license

Sales References:

Robomate Ltd 2nd Floor College House 17 King Edwards Road RUISLIP, London HA4 7AE UNITED KINGDOM	Behaviour Labs S.r.l.s. Via Santa Sofia,55 95123, Catania Sicily, ITALY.
www.blabs.eu	info@blabs.eu

