

5G VR Rehabilitation

Objective: Patients with multiple sclerosis improve their physical condition when they perform daily physical and cognitive rehabilitation. Therefore, through 5G, Edge Computing and VR technologies, we develop an immersive experience in which they can perform the rehabilitation exercises designed by medical specialists, but in an innovative, social and, above all, motivating way that increases their adherence to treatment.

Description: The team specialized in multiple sclerosis at the Hospital de La Princesa and Roche have jointly developed a collection of individual rehabilitation exercises, using virtual reality technology developed by La Frontera VR and led through an epic fantasy graphic story, in order to test in a clinical trial, the usability of this tool and its effects on the treatment of multiple sclerosis patients. The exercises are performed by the patients individually at home, after a training session at the hospital.

Telefónica has joined the project to evolve the current development and implement a multi-group and interactive application, so that patients can access to different virtual rooms where they can carry out their rehabilitation together with other patients, and even perform collaborative exercises with each other.

The application is deployed on the Edge Computing to ensure low latency and multi-user access. Low latency is essential to implement exercises that require coordination between users, such as picking up a virtual object and giving it to another user.

In this way, patients will be able to do group rehabilitation from the hospital, but also from their homes. 5G connectivity will be deployed at Hospital to ensure sufficient bandwidth for several concurrent users. In addition, the physiotherapist can connect remotely to support and monitor different patients in different rooms.

[Additional references](#)



Virtual Reality



Low Latency



Edge Computing

