The Centauri Project: Using a Friendly Robot with Portable EEG Headset on Robot Operating System (ROS) for Facilitating the Lives of Paralyzed People

Inan, Kagan

This project aims to use EEG devices with robots in order to increase brain-computer interaction of the paralyzed people. The intelligent interface guides the user through the menu rather than leaving the commands directly. It also increases the ease of use by using 2 mimics and 6 head movements and makes the number of options that can be selected unlimited. The patient can voice basic needs with robot. Centauri also allows remote control of patient’s companions. The web interface allows the live camera to communicate with the patient by transmitting the image and sound. The patient can send a request to speak to the attendant. Developers can easily integrate their applications into robots with Smart Interface's API support. The whole project is open source and anyone who wants can contribute.

Awards Won: