
Abstract

A system for providing non-invasive neuromodulation to a patient includes a mouthpiece and a controller. The mouthpiece includes an elongated housing, a printed circuit board, control circuitry mounted within the elongated housing, and a cable for connecting to a controller. The controller includes an elongated u-shaped element, an electronic receptacle, and a microcontroller. A method for providing non- invasive neurorehabilitation of a patient including connecting a mouthpiece to a controller, transmitting a numeric sequence to the mouthpiece, generating a first hash code, transmitting the first hash code to the controller, generating a second hash code, comparing the second hash code with the first hash code, enabling electrical communication between the mouthpiece and the controller only if the first hash code matches the second hash code, contacting the mouthpiece with the patient's intraoral cavity, and delivering neurostimulation to the patient's intraoral cavity.

Fig. 1 accompanies abstract