

The earlier versions of the Virtual Gym was originally built at London University in 1994 by Gerald Pollock, an electronics engineer who was also involved in the invention of the first pacemaker in the UK, based on his combined research with Donald Gilbert, a molecular biology London University professor.

Patents of four out of the eight hand-made boards were obtained during the early 80s when the empirical studies commenced.

The voltage-driven apparatus consists of multiple connections between the eight boards that are made by hand to synthesize and regulate the enhanced 24 unlimited resolution complex waveforms that are composed of four thousand frequencies on the basis of a specific sequence determined by a proprietary mathematical formula.

At a resistance of 500 Ω , the maximum voltage is 15V, increasing to 25V at 2000 Ω , and 50V at 10K Ω . Any current generated by the voltage, based on Ohm's law, is minuscule and cannot be directly measured.

The technology is classified as IEC class I according to the IEC60601- I standard, and it is used with 3-pin din and 4-pin din IEC 60601- I compliant cables and silver threaded self-adhesive pads that have been awarded their own FDA clearance. The technology has a CE marketing directive of Class I, with electromagnetic compatibility regulations applied standards EN50081- I, and EN50082- I. It complies with the EEC UK directive of electrical equipment safety applied standard EN 60601- I.

The general design of this technology has had no known side effects, in the past 30 years that it has been used in clinical practice by over 7,846 physicians, aesthetic practitioners and private users. The only contraindication, according to the FDA, is having an implanted device like a pacemaker. The main caution is pregnancy. All major medical and mental disorders require clearance by the patient's physician.

Adverse reactions are limited to temporary skin redness from the gel pads, that occurs sporadically and usually dissipates within a few hours.

Earlier versions of this technology based on the same electronic design have FDA clearance numbers K132158 and K132179.