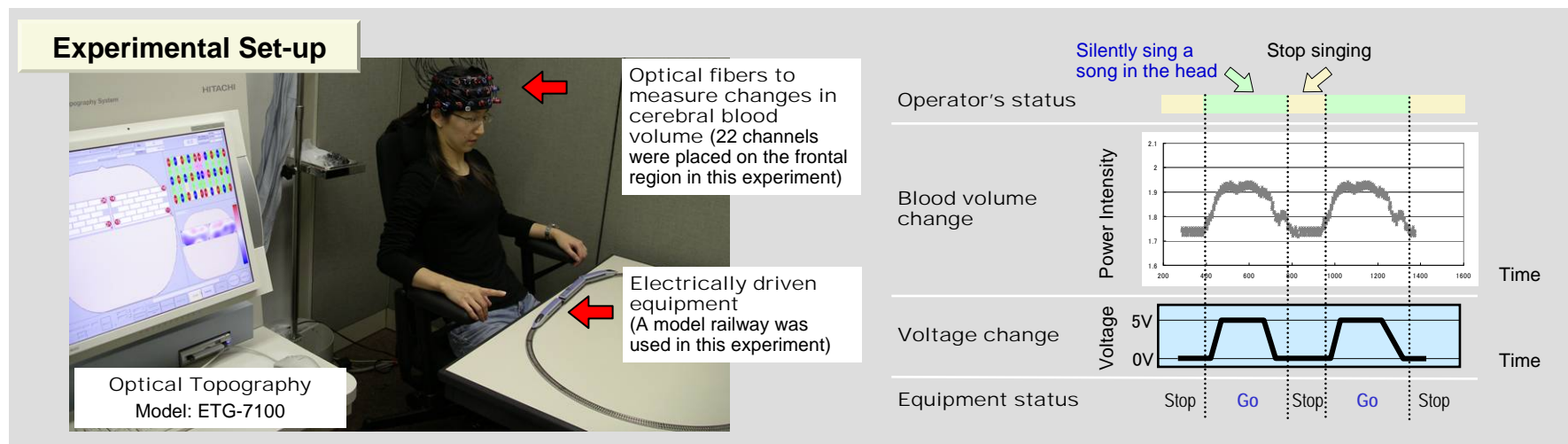


2006/11/6 Release

Basic experiment in the application of Optical Topography as a brain-machine interface to operate equipment



Hitachi, Ltd. announced today that it has successfully conducted basic experiments indicating the applicability of Optical Topography as a non-invasive brain machine interface (BMI) for the operation of electrically-controlled equipment. In the experiments, signals due to changes in regional blood volume in the prefrontal cortex when subjects conducted mental arithmetic or imagined singing a song, were used to control the ON/OFF operation of a small railway model. This result is the first step in the development of technology to apply Optical Topography to applications such as the operation of man-machine interface devices by persons whose movements are restricted or rehabilitation exercises to restore brain functionality, and is part of the ongoing research to develop information systems which are gentle to users.