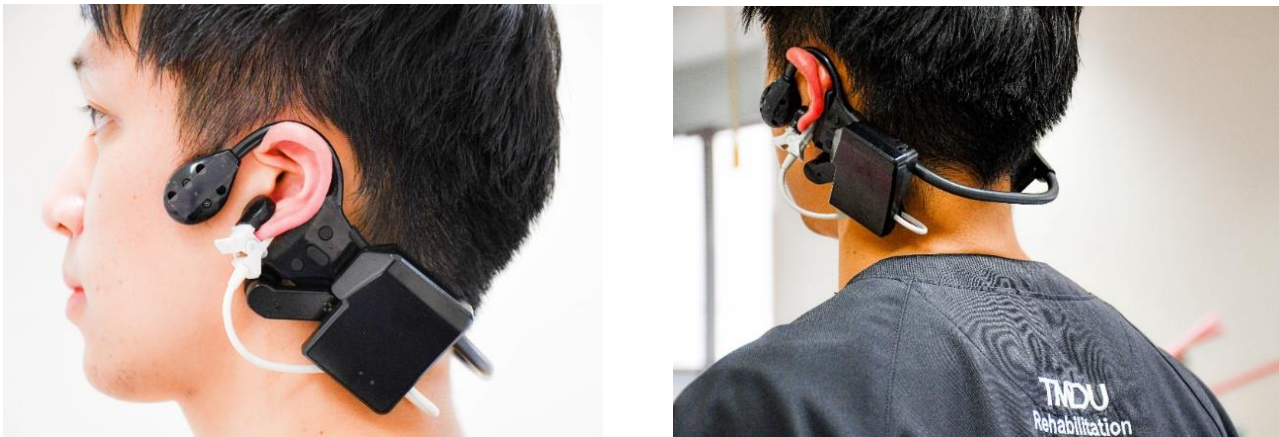


## Press Information

### KYOCERA and Tokyo Medical and Dental University Begin Joint Research on Vitals Measurement Headset

**Kyoto/London, June 30<sup>th</sup>, 2020.** Kyocera Corporation and Tokyo Medical and Dental University (TMDU) announced a joint research project to develop a wireless headset that can remotely monitor high accuracy patient biometrics, such as blood oxygen saturation (SpO<sub>2</sub>). The Department of Cardiovascular Medicine of TMDU Medical Hospital began preparing for clinical research of the wearable headset system in May 2020.



**A physical therapist in the Rehabilitation Center at TMDU tests an early prototype wearable headset system.**

#### **Coronavirus Rehabilitation Activities at Tokyo Medical and Dental University**

The Rehabilitation Center at TMDU Medical Hospital has introduced rehabilitation therapy for severely ill COVID-19 patients and remote rehabilitation for moderately ill patients who have recovered enough to walk independently. Aimed at helping patients recover faster, this will also help contribute to limiting infection risk for rehabilitation staff and preserving vital medical PPE for other uses. Dr. Tomoko Sakai, director of the rehabilitation center, explains, “The role of the rehabilitation center is important for recovering COVID-19 patients because of their tendency to develop thrombosis (blood clots) and cerebral infarctions (strokes).” This rehabilitation program has been well received by many patients as a way to help improve muscle strength, relieve stress, and facilitate psychological care.



### **Joint Research Background**

In order to perform this kind of rehabilitation treatment, the Department of Cardiovascular Medicine of TMDU Medical Hospital proposed to incorporate the wearable headset system in joint research with Kyocera. The project is aimed at bringing remote telemedicine to rehabilitation for patients with COVID-19, and has started preparation for clinical research on the wearable headset system.

### **Benefits of Introducing a Headset System**

A prototype in development can allow healthcare providers to check patient biometrics, such as blood oxygen saturation (SpO<sub>2</sub>) during rehabilitation in real time while communicating over standard wireless phone networks. It also allows medical professionals a more thorough evaluation and shortening the time of medical care. The new headset system incorporates bone-conduction audio technology instead of a traditional microphone and loudspeaker. This technology helps cancel unwanted ambient noise while letting patients move their limbs freely during exercise. Future development goals include miniaturizing the headset to allow convenient, real-time biometric monitoring of patients during at-home recuperation.

Kyocera Corporation and TMDU will continue the trial operation in Japan to verify the effectiveness of remote medical care and rehabilitation for patients and examine the system's potential for treating other ailments.

### **[About Tokyo Medical and Dental University \(TMDU\)](#)**

TMDU is located in the Yushima / Shoheizaka area, which is considered the sacred birthplace of scholarship and learning in Japan. As a comprehensive medical university, TMDU cultivates "professionals with knowledge and humanity" who embark on a lifetime of service, advancing the health and social welfare of people in the local community and spreading their wings to do the same in other communities across the globe.



For more information on Kyocera: [www.kyocera.co.uk](http://www.kyocera.co.uk)

### **About Kyocera**

Headquartered in Kyoto, Japan, Kyocera Corporation is one of the world's leading manufacturers of fine ceramic components for the technology industry. The strategically important divisions in the Kyocera Group, which is comprised of 298 subsidiaries (as of March 31, 2020), are information and communications technologies, products which increase quality of life, and environmentally friendly products. The technology group is also one of the most experienced producers of smart energy systems worldwide, with more than 40 years of know-how in the industry.

The company is ranked #549 on Forbes magazine's 2020 "Global 2000" listing of the world's largest publicly traded companies. With a global workforce of over 75,500 employees, Kyocera posted sales revenue of approximately €13,33 billion in fiscal year 2019/2020. The products marketed by the company in Europe include printers, digital copying systems, semiconductor-, fine ceramic-, automotive- and electronic components as well as printing devices and ceramic kitchen products. The Kyocera Group has two independent companies in the United Kingdom: Kyocera Fineceramics Ltd. and Kyocera Document Solutions.

The company also takes an active interest in cultural affairs. The Kyoto Prize, a prominent international award, is presented each year by the Inamori Foundation — established by Kyocera founder Dr. Kazuo Inamori — to individuals worldwide who have contributed significantly to the scientific, cultural, and spiritual betterment of humankind (converted at approximately €828,000 per prize category).

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