

OMRON develops ventilators with VENINDO to assist in COVID-19 recovery

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User-friendly, Durable, Reliable and Scalable Industrial PC to Support the Medical Devices Industry

Due to the continuously evolving COVID-19 situation in Indonesia, hospitals and medical centres are facing increased bed occupancy rate (BOR). The efforts to ensure medical help for all is also facing challenges due to limited medical equipment such as ventilators – which are one of the most important devices for patients requiring breathing support due to COVID-19 infection.

In this need or urgency of medical supplies and devices, Ministry of Industry Indonesia reached out to the local automotive manufacturers to help in producing ventilators. To respond to the Ministry's request, the manufacturers teamed up with local ventilator innovators and well-known universities in Indonesia to form a ventilator core project group named as VENINDO TEAM (Ventilator Indonesia Team).

To hasten the development process, VENINDO Team invited OMRON – one of the leading players in the industrial automation domain to join on the ventilator development endeavour.

OMRON Team rendered an important component to the development in the form of its NY Series Industrial PC with touchscreen function. Considering the complexity of a ventilator machine, the component is extremely useful in controlling the right oxygen pressure needed by the patient's body and in giving timely alarm about the vital signs to nurses, doctors and healthcare professionals if abnormalities are detected.

Another very useful feature of OMRON Industrial PC is its capability to get integrated with an Internet of Things (IoT) platform. With this vertical integration, the OMRON Industrial PC can deliver data from ventilator machines directly to the IT system. As a result, the medical scientists could collect the data from ventilator and store it to the cloud by using Ethernet Port and analyse it to create a better treatment for patients in the future.

"We commit to support the project by ensuring supply chain fulfilment and quality assurance meeting all expectations of our partners", says Don Teng, Managing Director of PT. OMRON Electronics - Indonesia.

With likeminded partners like VENINDO, the designing and creation of the prototype turned out to be a seamless process. The ventilator from VENINDO Team had passed a series of trial tests from the Surabaya BPFK (Badan Pengaman Fasilitas Kesehatan) institutions and is currently undergoing clinic trial tests for getting certified as a medical equipment from Indonesia Ministry of Health.