

Taiwan makes smallest wireless intra-abdominal pressure sensing capsule

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PressureDOT is a real-time wireless pressure sensor platform used in critical care

Hospitals and health systems across the world are looking at telehealth strategies to facilitate their advance into the telemedicine industry. Taiwan based PressureDOT is at the forefront of remote critical monitoring with its recently developed, world's smallest wireless intra-abdominal pressure sensing capsule.

PressureDOT is a real-time wireless pressure sensor platform used in critical care to prevent unnecessary laparotomies and to prevent organ failure in patients with pancreatitis, traumatic abdomen injuries, and septicemia.

The capsule is composed of a pressure sensor and a Printed Circuit Board Assembly (PCBA) that can pass into the body via swallowing or nasogastric tube delivery. The capsule uses advanced packaging technology. Once the patient swallows the capsule, the system works automatically.

PressureDOT incorporates a high-efficiency antenna that is safe for ingestion. It transmits signals with low acceleration. The external receiver system uses a special antenna array to track the capsule position and gastrointestinal motility in real-time. Doctors and healthcare providers can then monitor the patient's bio information using a mobile device.

Data streamed by PressureDOT include information on intra-abdominal pressure, temperature, pressure trends, and capsular 3D location tracking. All provide physicians with the most reliable information for making proper diagnosis and intervention recommendations to avoid delayed treatment.