

Autonomous Brain Surgery Navigating Robot Solution



Background

Due to global pandemic, to avoid physical contact during surgical or diagnostic procedure is a good way to prevent spreading the virus to others. Moreover, for brain surgery the doctors are usually taking times at handing devices during surgery procedure to confirm the right position in patient's brain, and to reduce blood clots to improve patient's outcome versus rehabilitation by using 3D Neuro-Endoscopic with unique navigation technology to control the flow is recommended for of ICH (Intracerebral Hemorrhage) aspiration.

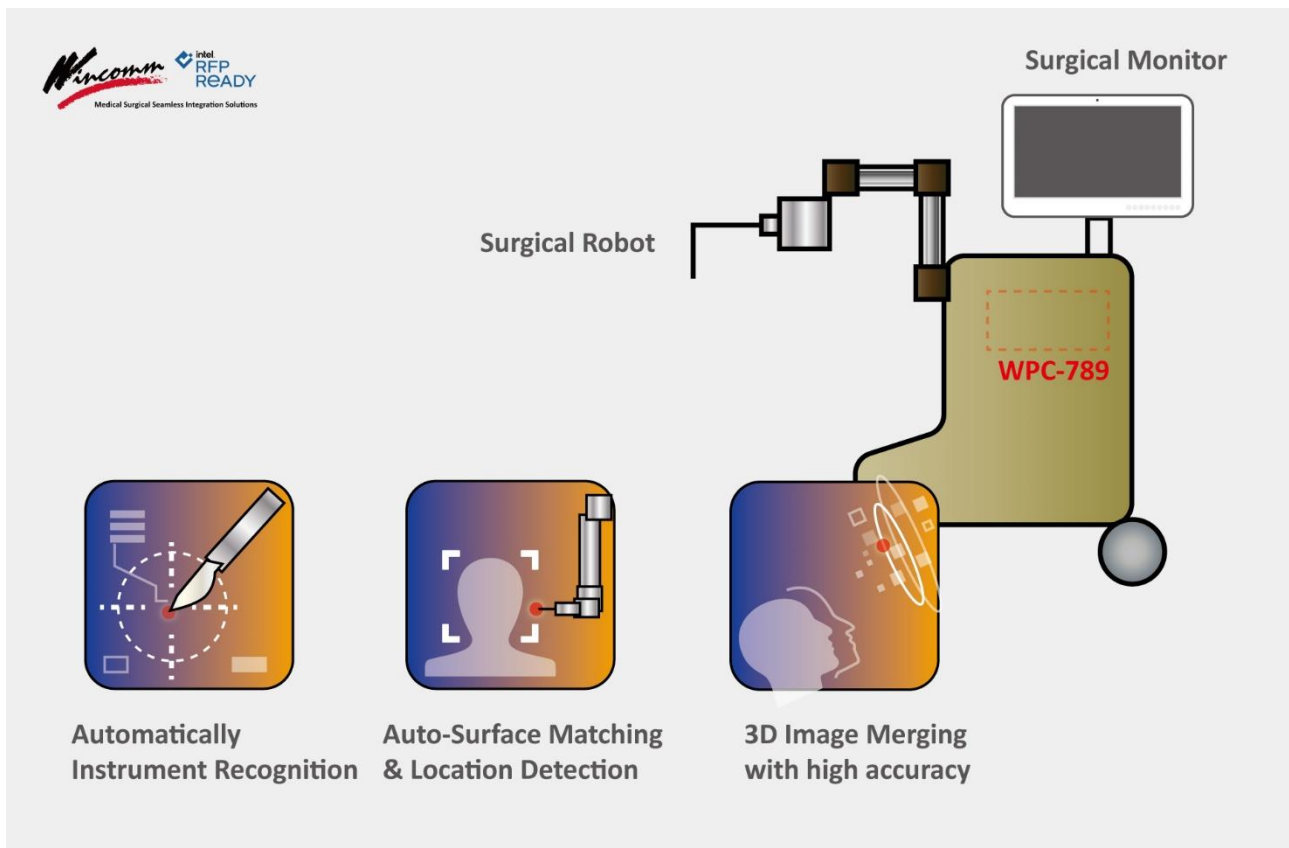
Pain Points

To enable various signal inputs from different modules, it would require one programmable way to capture the signal and integrate within the platform to initiate the surgery flow, such as

- Programmable API to enable signal inputs to integrate for applications
- Vision accelerating graphic card to improve the operating flow
- Must be medical grade passed certification locally

- Must support SDI/HDMI or USB connector to fulfill various type of endoscope
- Video capture card support
- Flexible I.O. support for various sensors' connection

Wincomm Solutions



Featuring on High CPU performance, PCI-E[x4/x8/x16] Expansion, and rich I.O., Up to 8 USB, VGA/HDMI/DP for each, 3 Audio, 3 LAN & 2 COM

Wincomm provided the medical grade box pc WPC-789 series, equipped with Intel 12th Gen. Core i9/i7/i5 processors with high power graphic card, and GPI function to enable the autonomous brain surgery navigating robot solutions. In this case, it is required to integrate more than 10 sensors to build 3D brain model real time and navigate the detector inserted to the patients in this surgery flow. Furthermore, it would link to the captured image flow to smoothly integrate into the overall surgery, so this programming API is a tool kits with the capture card that provided the completed solution for developer. Finally, Wincomm worked with our partners to co-develop this medical pc with rich I.O. and high power output support to enable this solution.

For more product information, please visit the Wincomm website at <https://www.wincommusa.com/category-Medical-Series-C001.html>