

iSys1

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iSys1 is a [robotic system](#) designed specifically for [stereotactic neurosurgical procedures](#). It is often used to guide precise interventions in the brain, such as biopsies, catheter placements, and electrode insertions, particularly in [deep brain stimulation](#) (DBS) and minimally invasive surgeries. The system enhances the accuracy of targeting within the brain and supports real-time adjustments based on imaging data. Key features of iSys1 include:

Precision: It allows for highly accurate targeting, often down to sub-millimeter levels, crucial for delicate brain structures.

Minimally Invasive: The system is designed for procedures that require minimal disruption to surrounding brain tissue, leading to quicker recovery times.

Stereotactic Guidance: iSys1 integrates with imaging modalities like CT and MRI to offer stereotactic guidance, enabling surgeons to perform precise, image-guided procedures.

Compact Design: It is smaller compared to other neurosurgical robotic systems, making it easier to integrate into various surgical environments without requiring extensive setup or space.

Applications:

Intracerebral hemorrhage (ICH) drainage

Tumor biopsies

Deep brain stimulation (DBS) electrode placement

Ventriculostomy and catheter placement for hydrocephalus

This system is valuable for improving surgical precision, reducing operative time, and minimizing the risk of complications, especially in complex neurosurgical interventions.

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