

There are several prominent companies starting with the letter **M** that are either primary manufacturers of Deep Brain Stimulation (DBS) hardware or provide critical surgical technologies used for deep brain access and therapy.

## 1. Medtronic (The Market Leader)<sup>1</sup>

Medtronic is the pioneer of Deep Brain Stimulation and currently the largest player in the market. They were the first company to receive FDA approval for DBS in 1997.<sup>2</sup>

- **Key Products:** The **Percept™ PC** and **Percept™ RC** (rechargeable) systems.<sup>3</sup>
- **Innovations:** They recently introduced **BrainSense™ technology**, which is the first "closed-loop" system.<sup>4</sup> It can "sense" and record brain signals (local field potentials) while delivering therapy, allowing doctors to adjust settings based on real-time data.<sup>5</sup>  
+1
- **Indications:** Their devices are FDA-approved for Parkinson's disease, Essential Tremor, Dystonia, Epilepsy, and Obsessive-Compulsive Disorder (OCD).<sup>6</sup>

## 2. MicroPort Scientific Corporation (MicroPort Neuromodulation)

MicroPort is a massive global medical device company (headquartered in China) with a dedicated neuromodulation branch that competes directly with Medtronic.

- **Key Products:** The **G-Series** neurostimulator and various DBS leads.
- **Focus:** They focus on high-precision lead placement and affordable, long-lasting rechargeable batteries. While very dominant in Asian markets, they have a growing global presence.

## 3. MicroLeads

MicroLeads is a clinical-stage startup focusing on high-resolution neuromodulation.

- **Technology:** They are developing the **\$\mu\$DBS (Micro-DBS)** lead. Traditional DBS leads have 4 to 8 large contacts; MicroLeads uses high-density "micro-contacts" to provide much more precise "steering" of the electrical field.
- **Goal:** The aim is to reduce side effects (like speech or balance issues) by ensuring the stimulation only hits the intended target without "leaking" into surrounding brain tissue.

## 4. Monteris Medical

While not a "DBS" company in the traditional electrical stimulation sense, Monteris is a leader in **Deep Brain** interventions.

- **Technology:** Their **NeuroBlate® System** uses MRI-guided laser interstitial thermal

therapy (LITT).

- **Connection to DBS:** It is often used to treat similar deep-seated targets for conditions like drug-resistant epilepsy and brain tumors. It is a "lesioning" therapy rather than a "stimulation" therapy, but it is a major competitor in the deep brain therapeutic space.

## 5. Minnetronix Medical (now Forj Medical)

Minnetronix is a major medical technology partner that recently commercialized its own deep-brain surgical tool.<sup>7</sup>

- **Key Product:** The **MindsEye™ Expandable Port**.<sup>8</sup>
- **Function:** This is a "brain access" system.<sup>9</sup> It provides a minimally invasive path for surgeons to reach deep-seated areas of the brain for surgery or for the placement of electrodes/leads. It is currently the only expandable port on the market that allows for visualization and access to the deep brain.<sup>10</sup>

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## Comparison of Key Companies

Company	Role	Primary Focus
<b>Medtronic</b>	Manufacturer	Market leader; Closed-loop "sensing" technology.
<b>MicroPort</b>	Manufacturer	Global competitor; High-longevity rechargeable IPGs.
<b>MicroLeads</b>	Tech Developer	High-resolution leads with 10x more contacts.
<b>Monteris</b>	Therapy	Deep brain laser ablation (thermal therapy).
<b>Minnetronix</b>	Surgical Access	Expandable ports for deep brain visibility.

Would you like more details on a specific company's technology or perhaps a

**comparison of how Medtronic's DBS differs from other major competitors like Abbott or Boston Scientific?**