

TRACKABLE PEDICLE SCREWS

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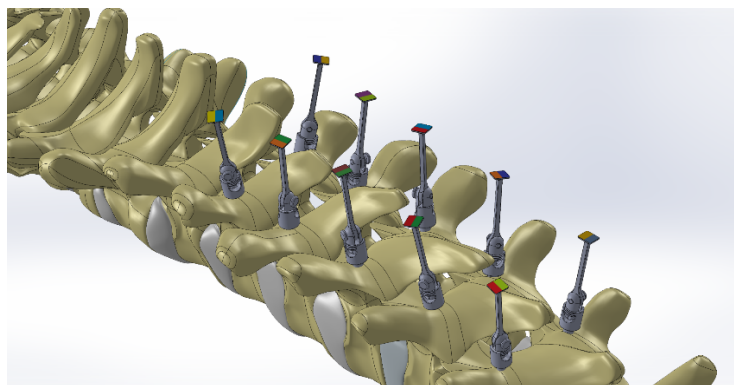
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Technology Description

Researchers at Washington University in St. Louis have developed a system that uses lenticular arrays to better track pedicle screw placement during spinal fusion surgery. By enabling an accurate assessment of the screws' locations, this system allows for computer-automated spinal rod bending.

Extenders using a step-locking hinge mechanism are placed on each pedicle screw, each containing a trackable marker. A more accurate system of screw tracking will ensure the spinal rod has the proper lordosis.



Stage of Research

The researchers have conceptualized and manufactured the screw tracking system, and *in vivo* accuracy testing has been performed.

Applications

- Spinal correction and fusion surgery

Key Advantages

- Enables accurate assessment of screw location
- Allows for computer-automated spinal rod bending

Patents: Pending

Related Web Links: Leuthardt [Profile](#) & [Lab](#)