



July 9, 2026

Zeta Surgical, Inc.
Hieu Le Mau
Chief Operating Officer
280 Summer St.
Floor 7
Boston, Massachusetts 02210

Re: K261471
Trade/Device Name: Zeta TMS Navigation System
Regulation Number: 21 CFR 882.4560
Regulation Name: Stereotaxic Instrument
Regulatory Class: Class II
Product Code: QFF, SGE
Dated: June 9, 2026
Received: June 9, 2026

Dear Hieu Le Mau:

We have reviewed your section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (the Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database available at <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm> identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Additional information about changes that may require a new premarket notification are provided in the FDA guidance documents entitled "Deciding When to Submit a 510(k) for a Change to an Existing Device" (<https://www.fda.gov/media/99812/download>) and "Deciding When to Submit a 510(k) for a Software Change to an Existing Device" (<https://www.fda.gov/media/99785/download>).

Your device is also subject to, among other requirements, the Quality Management System Regulation (QMSR) (21 CFR Part 820), which includes, but is not limited to, ISO 13485 clause 7.3 (Design controls), ISO 13485 clause 8.3 (Nonconforming product), ISO 13485 clause 8.5.2 (Corrective action), and ISO 13485 clause 8.5.3 (Preventative action). Please note that regardless of whether a change requires premarket review, the QMSR requires device manufacturers to review and approve changes to device design and production (ISO 13485 clause 7.3 and ISO 13485 clause 7.5) and document changes and approvals in the Medical Device File (ISO 13485 clause 4.2.3).

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR Part 803) for devices or postmarketing safety reporting (21 CFR Part 4, Subpart B) for combination products (see <https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products>); good manufacturing practice requirements as set forth in the Quality Management System Regulation (QMSR) (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR Part 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR Parts 1000-1050.

All medical devices, including Class I and unclassified devices and combination product device constituent parts are required to be in compliance with the final Unique Device Identification System rule ("UDI Rule"). The UDI Rule requires, among other things, that a device bear a unique device identifier (UDI) on its label and package (21 CFR 801.20(a)) unless an exception or alternative applies (21 CFR 801.20(b)) and that the dates on the device label be formatted in accordance with 21 CFR 801.18. The UDI Rule (21 CFR 830.300(a) and 830.320(b)) also requires that certain information be submitted to the Global Unique Device Identification Database (GUDID) (21 CFR Part 830 Subpart E). For additional information on these requirements, please see the UDI System webpage at <https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/unique-device-identification-system-udi-system>.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance>) and CDRH Learn (<https://www.fda.gov/training-and-continuing-education/cdrh-learn>). Additionally, you may contact the

Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice>) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

**JULIA E.
SLOCOMB -S**

Digitally signed by JULIA E.
SLOCOMB -S
Date: 2026.07.09 17:10:35
-04'00'

for Jaime Raben, Ph.D.

Director

DHT5A: Division of Neurosurgical,
Neurointerventional, and
Neurodiagnostic Devices

OHT5: Office of Neurological and
Physical Medicine Devices

Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

Indications for Use

Please type in the marketing application/submission number, if it is known. This textbox will be left blank for original applications/submissions.

K261471

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Please provide the device trade name(s).

?

Zeta TMS Navigation System

Please provide your Indications for Use below.

?

The Zeta TMS Navigation System is a stereotaxic image guidance system intended for accurate positioning of the treatment coil of TMS systems with respect to target brain locations based on data obtained from 3D patient imaging.

The product is intended for use with the MagVenture therapy systems supplied by Tonica Elektronik A/S (Farum, Denmark), more precisely the R30 stimulator, the R30 stimulator with MagOption, the X100 stimulator and the X100 stimulator with MagOption only with following magnetic coils: Cool-B65 RO. In addition, the product is intended for use with the Apollo TMS Therapy System supplied by MAG & More GmbH (Munich, Germany), only with the following magnetic coils: PMD70-aCool.

Please select the types of uses (select one or both, as applicable).

☒ Prescription Use ([21 CFR 801 Subpart D](#))

☐ Over-The-Counter Use ([21 CFR 801 Subpart C](#))

?

Please select the age group(s) for which the device(s) is to be used.

☐ Neonates/Newborns (Birth to < 29 days old)

☐ Infants (29 days old to < 2 years old)

☐ Children (2 years old to < 12 years old)

☐ Adolescents (12 years old to < 22 years old)

☒ Adults (22 years old and greater)

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In accordance with 21 CFR 807.87(h) and 21 CFR 807.92, the 510(k) Summary for the Zeta TMS Navigation System is provided below.

1. SUBMITTER

Applicant: Zeta Surgical Inc.
280 Summer Street, Floor 7
Boston, MA 02210

Contact: Hieu Le Mau
Chief Operating Officer
Zeta Surgical Inc.
280 Summer Street, Floor 7
Boston, MA 02210
+1 (857) 225-4138
hieu.lemau@zetasurgical.com

2. DEVICE

Device Trade Name: Zeta TMS Navigation System
Device Common Name: Neurological Stereotaxic Instrument
Classification Name: Stereotaxic instrument, 21 CFR 882.4560
Regulatory Class: Class II
Product Code: QFF, SGE

3. PREDICATE DEVICE

Zeta TMS Navigation System [K251927]
TMS-Cobot TS MV, AXILUM Robotics [K182768]

4. DEVICE DESCRIPTION

The Zeta TMS Navigation System is a stereotaxic, image-guided planning and guidance system enabling computer-assisted procedures. The system assists the trained clinical professionals with accurate positioning of the coils of TMS treatment systems relative to patient anatomy by displaying the position of a navigated TMS coil relative to 3D neuroimaging scans. It also has an optional computer-controlled electromechanical arm accessory which can be activated and controlled by the users on the software user interface. The accessory is intended for accurate spatial positioning and orientation of the treatment coils of TMS systems with respect to target brain locations based on data obtained from 3D patient imaging. The system provides navigation in three planes (axial, sagittal, and coronal) and enables the selection of target anatomical points. The underlying RealTrack algorithm allows for real-time tracking of head movement using only the patient's native anatomical features, eliminating the need for rigid head immobilization, body-mounted frames, or facial fiducials. The Zeta TMS Navigation System consists of a navigation cart, a software user interface, and a fiducial-attached plate to be attached to the TMS coil.



5. INDICATIONS FOR USE

The Zeta TMS Navigation System is a stereotaxic image guidance system intended for accurate positioning of the treatment coil of TMS systems with respect to target brain locations based on data obtained from 3D patient imaging.

The product is intended for use with the MagVenture therapy systems supplied by Tonica Elektronik A/S (Farum, Denmark), more precisely the R30 stimulator, the R30 stimulator with MagOption, the X100 stimulator and the X100 stimulator with MagOption only with following magnetic coils: Cool-B65 RO. In addition, the product is intended for use with the Apollo TMS Therapy System supplied by MAG & More GmbH (Munich, Germany), only with the following magnetic coils: PMD70-aCool.

6. SUBSTANTIAL EQUIVALENCE

The table below summarizes the substantial equivalence between the Zeta TMS Navigation System (K261471) and its predicate navigation system, Zeta TMS Navigation System (K251927).

	PREDICATE DEVICE	SUBJECT DEVICE
510(K) NUMBER	K251927	K261471
DEVICE NAME	Zeta TMS Navigation System	Zeta TMS Navigation System
CLASSIFICATION REGULATION	21 CFR 882.4560	21 CFR 882.4560
PRODUCT CODE	QFF, SGE	QFF, SGE
CLASSIFICATION	Class II	Class II
INDICATIONS FOR USE	The Zeta TMS Navigation System is a stereotaxic image guidance system intended for accurate positioning of the treatment coil of TMS systems with respect to target brain locations based on data obtained from 3D patient imaging. The product is intended for use with the MagVenture therapy systems supplied by Tonica Elektronik A/S (Farum, Denmark), more precisely the R30 stimulator, the R30 stimulator with MagOption, the X100 stimulator and the X100 stimulator with MagOption only with following magnetic coils: Cool-B65 RO.	The Zeta TMS Navigation System is a stereotaxic image guidance system intended for accurate positioning of the treatment coil of TMS systems with respect to target brain locations based on data obtained from 3D patient imaging. The product is intended for use with the MagVenture therapy systems supplied by Tonica Elektronik A/S (Farum, Denmark), more precisely the R30 stimulator, the R30 stimulator with MagOption, the X100 stimulator and the X100 stimulator with MagOption only with following magnetic coils: Cool-B65 RO. In addition, the product is intended for use with the Apollo TMS Therapy System supplied by MAG & More GmbH (Munich, Germany), only with the following magnetic coils: PMD70-aCool.
INTENDED USER	Trained clinical professionals	Trained clinical professionals



	PREDICATE DEVICE	SUBJECT DEVICE
INTENDED USE ENVIRONMENT	Clinical environments such as medical offices and outpatient facilities, where TMS is administered under the supervision of qualified medical personnel.	Clinical environments such as medical offices and outpatient facilities, where TMS is administered under the supervision of qualified medical personnel.
PRESCRIPTION USE	Yes	Yes
ANATOMICAL SITE	Head	Head
NEURONAVIGATION PRINCIPLE	Anatomy registered to patient via structured light-based infrared 3D camera. Instrument tracking done by infrared 3D camera.	Anatomy registered to patient via structured light-based infrared 3D camera. Instrument tracking done by infrared 3D camera.
ACCEPTED IMAGING MODALITIES	3D DICOM CT, MRI	3D DICOM CT, MRI
MAJOR SYSTEM COMPONENTS	Zeta Cart, Sensor head, Sensor head positioning arm, Monitor, Monitor positioning arm, Tracked TMS coil, Software	Zeta Cart, Sensor head, Sensor head positioning arm, Monitor, Monitor positioning arm, Tracked TMS coil, Software
WORKFLOW COMPONENTS	Upload, Segmentation, Planning, Staging/Positioning, Registration, Navigation	Upload, Segmentation, Planning, Staging/Positioning, Registration, Navigation
SELECTION OF TARGETS	Targets can be determined on the basis of anatomy and functional areas.	Targets can be determined on the basis of anatomy and functional areas.
PLANNING FEATURES	Multiple target point selection, multiple instrument selection	Multiple target point selection, multiple instrument selection
2D VIEWING	Yes: axial, coronal, sagittal slices through configurable cut planes in 3D scene	Yes: axial, coronal, sagittal slices through configurable cut planes in 3D scene
3D VIEWING	Yes: 3D viewing of skin for segmentation and planning	Yes: 3D viewing of skin for segmentation and planning
SCANNER INTERFACE	DICOM import of MR/CT images	DICOM import of MR/CT images
REGISTRATION FEATURES	Automatic, pinless, and markerless	Automatic, pinless, and markerless
COMPATIBLE COILS	Magventure Cool-B65 RO	Magventure Cool-B65 RO, Apollo PMD70-aCool
ACCESSORIES	IZI Disposable Passive Blunt Probe	IZI Disposable Passive Blunt Probe, and an optional Robotic Coil Holder



The table below summarizes the substantial equivalence between the Zeta TMS Navigation System with the robotic coil holder accessory (K261471) and its predicate device, the MagVita TMS Therapy System used in combination with the Axilum Robotics TMS-Cobot TS MV (K182768).

	PREDICATE DEVICE	SUBJECT DEVICE
510(K) NUMBER	K182768	K261471
DEVICE NAME	MagVita TMS Therapy System using Axilum Robotics TMS-Cobot TS MV	Zeta TMS Navigation System using Zeta Robotic Coil Holder
PRODUCT CODE	QFF	QFF, SGE
CLASSIFICATION	Class II	Class II
INTENDED USE OF ELECTROMECHANICAL ARM	Axilum Robotics TMS-Cobot TS MV is a computer controlled electromechanical arm indicated for spatial positioning and orientation of the treatment coil of the MagVita TMS Therapy System.	Robotic Coil Holder consists of a computer controlled electromechanical arm indicated for spatial positioning and orientation of compatible TMS treatment coils.
COIL HOLDER	Active electromechanical arm	Active electromechanical arm
DEGREES OF FREEDOM	6	7

7. PERFORMANCE DATA

7.1. Biocompatibility Testing

There are no direct or indirect patient-contacting components of the subject device. Therefore, patient contact information is not needed for this device.

7.2. Electrical safety and electromagnetic compatibility (EMC)

The subject device was tested in accordance with the following standards:

- IEC 60601-1:2005 (Ed. 3) + CORR. 1:2006 + CORR.2:2007+A1:2012 *Medical electrical equipment: Part 1: General requirements for basic safety and essential performance* including US deviations, except Clause 11.7 regarding biocompatibility. The Zeta navigation cart passed all tests.
- IEC 62304:2006+ Amd 1:2015, *Medical device software - Software life cycle processes*. The Zeta navigation cart passed all tests.
- IEC 60601-1-2:2014+A1:2021, *Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral Standard: electromagnetic disturbances – Requirements and tests*. The Zeta navigation cart passed all tests.

- IEC 60601-1-6 (Ed. 3.2 2020-07), *Medical electrical equipment - Part 1-6: General requirements for basic safety and essential performance - Collateral standard: Usability*. The Zeta navigation cart passed all tests.
- IEC 60601-1-2:2020 (Ed. 4.1), *Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral Standard: electromagnetic disturbances - Requirements and tests*. The optional robot cart accessory passed all tests.
- IEC TS 60601-4-2:2024 (Ed. 1.0), *Medical electrical equipment - Part 4-2: Guidance and interpretation - Electromagnetic immunity: performance of medical electrical equipment and medical electrical systems*. The optional robot cart accessory passed all tests.
- IEC 60601-1:2005, IEC 60601-1:2005/AMD1:2012, IEC 60601 1:2005/AMD2:2020 *Medical electrical equipment: Part 1: General requirements for basic safety and essential performance*. The optional robot cart accessory passed all tests.

7.3. Software Verification and Validation Testing

Software verification and validation testing was conducted, and documentation provided as recommended by FDA's Guidance for Industry and FDA Staff, *Guidance for the Content of Premarket Submissions for Software Contained in Medical Devices*.

Cybersecurity documentation was provided as recommended by FDA's Guidance for Industry and FDA Staff, *Content of Premarket Submissions for Management of Cybersecurity in Medical Devices* and *Cybersecurity in Medical Devices: Quality System Considerations and Content of Premarket Submissions*.

7.4. Sterilization, Cleaning, and Shelf Life

The device is reusable, provided non-sterile, and is not sterile when used. Cleaning instructions are provided in the labeling. Shelf-life is not applicable due to the low likelihood of time-dependent product degradation.

7.5. Bench Testing

Bench testing was conducted to demonstrate substantial equivalence. The testing provides objective evidence that the device meets all Design Input requirements, maintains basic safety and essential performance under clinically relevant conditions, and complies with the latest regulatory standards.

7.6. Clinical Testing

No clinical testing was required for the subject device.

8. CONCLUSION

The results of testing described above demonstrate that the Zeta TMS Navigation System and the optional Robotic Coil Holder accessory, is as safe and effective as the predicate device and supports a determination of substantial equivalence.