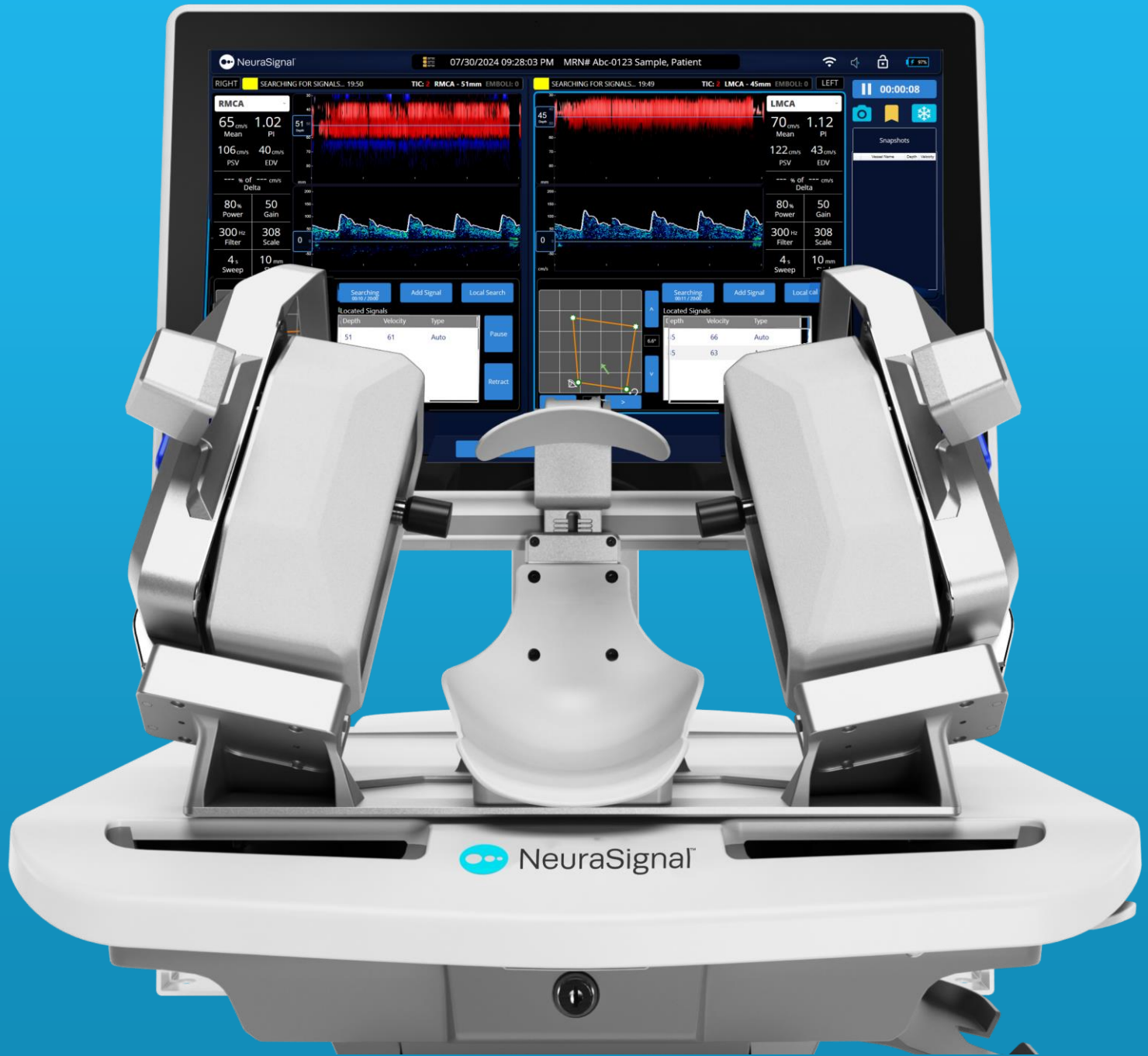
NeuraSignal™

NovaGuide™ 2

Intelligent Ultrasound

Quick Start Guide



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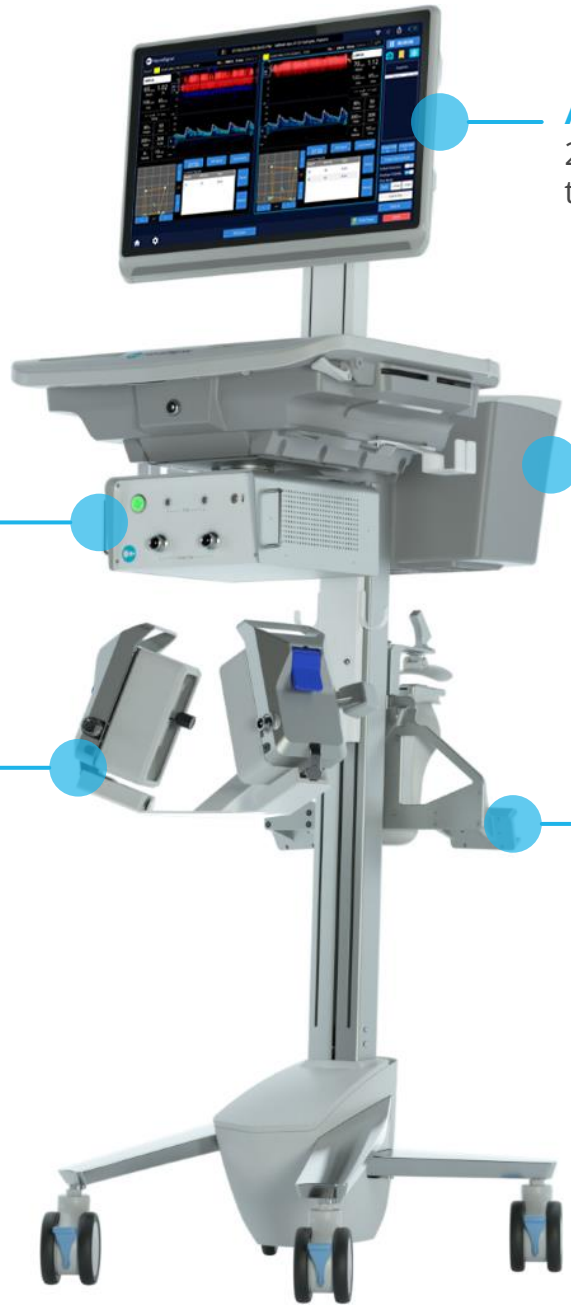
System Components



All-in-One Computer (AIO)
22-inch medical grade touchscreen that is used to operate NovaGuide 2.

Cart
Portable, medical grade cart with an adjustable-height, flat work surface.

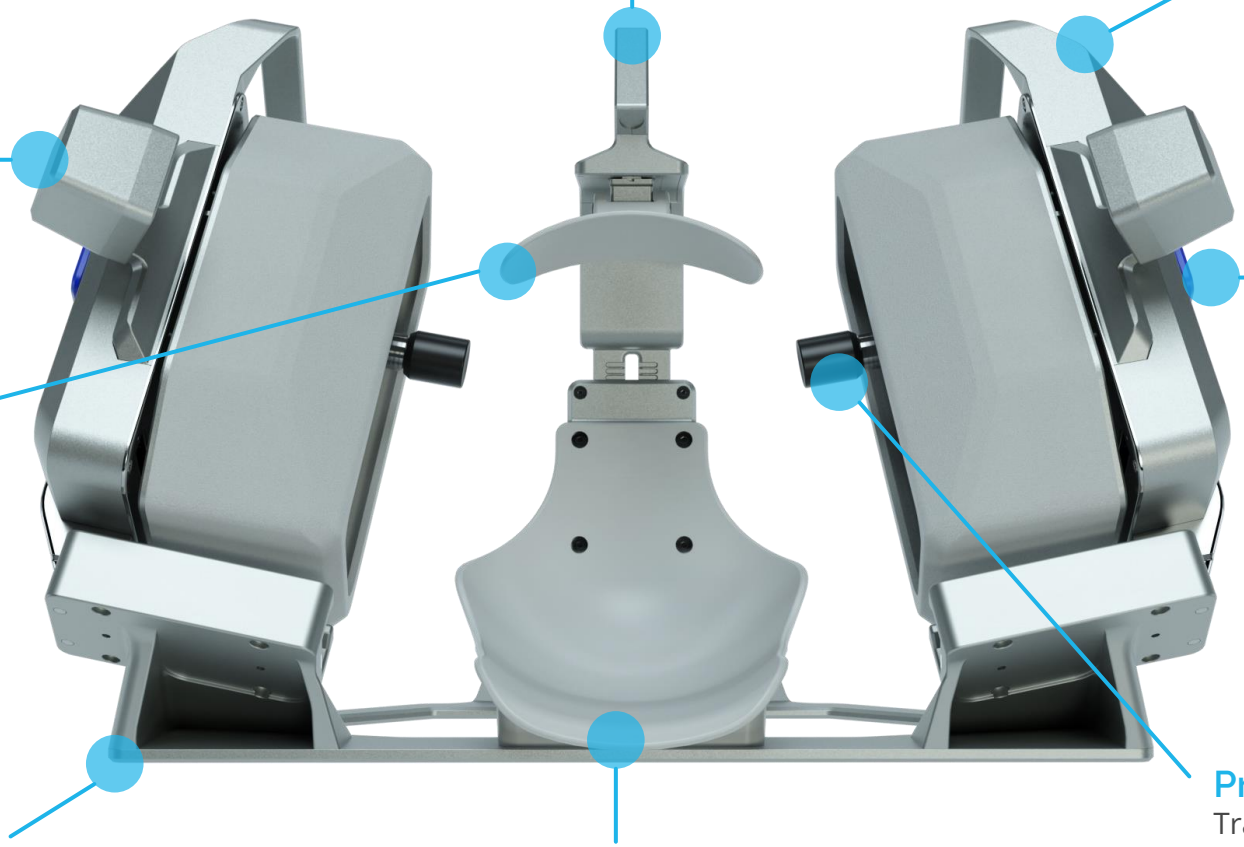
Storage Bin
Storage for ultrasound gel, NovaKit 2 exam packs, remote, and additional items.

Doppler Robotics Unit (DRU)
Robotic control unit containing electronics, software, and firmware.

Probe Pods
Probe pods are stored externally on rails on the front of the cart.

Patient Head Unit (PHU)
Unit that is placed on the patient's head to conduct an exam; Consists of the headmount base, head cradle, left and right probe pods, laser alignment, and the forehead restraint.

Patient Head Unit



Eye-Safe Laser
A laser mounted on the top of the head stabilizer to help with positioning of the head in the head cradle.

Probe Pods (Left and Right)
Detachable pods that contain the probes and robotic actuators. Probe pods have LED lights on top to guide positioning.

Registration Cameras (Left and Right)
Cameras that recognize the patient registration dots so the system can determine search range area.

Latches (Left and Right)
Probe pods are locked in place on the prob pod rails using a quick-flip latch.

Forehead Restraint
An adjustable, detachable brace on the head cradle that is used to stabilize and hold the patient's head. NovaKit 2 single-use foam is applied for comfort and cleanliness.

Probes (Left and Right)
Transcranial Doppler ultrasound probes that are contained within the probe pods.

Headmount Base
The support structure of the patient headmount unit. This piece rests on the bed.

Head Cradle
The support structure in which the patient's head is placed. NovaKit 2 single-use foam is applied for comfort and cleanliness.

System Preparation

1. Plug in the main power cord and power on the AIO

2. Power on the DRU

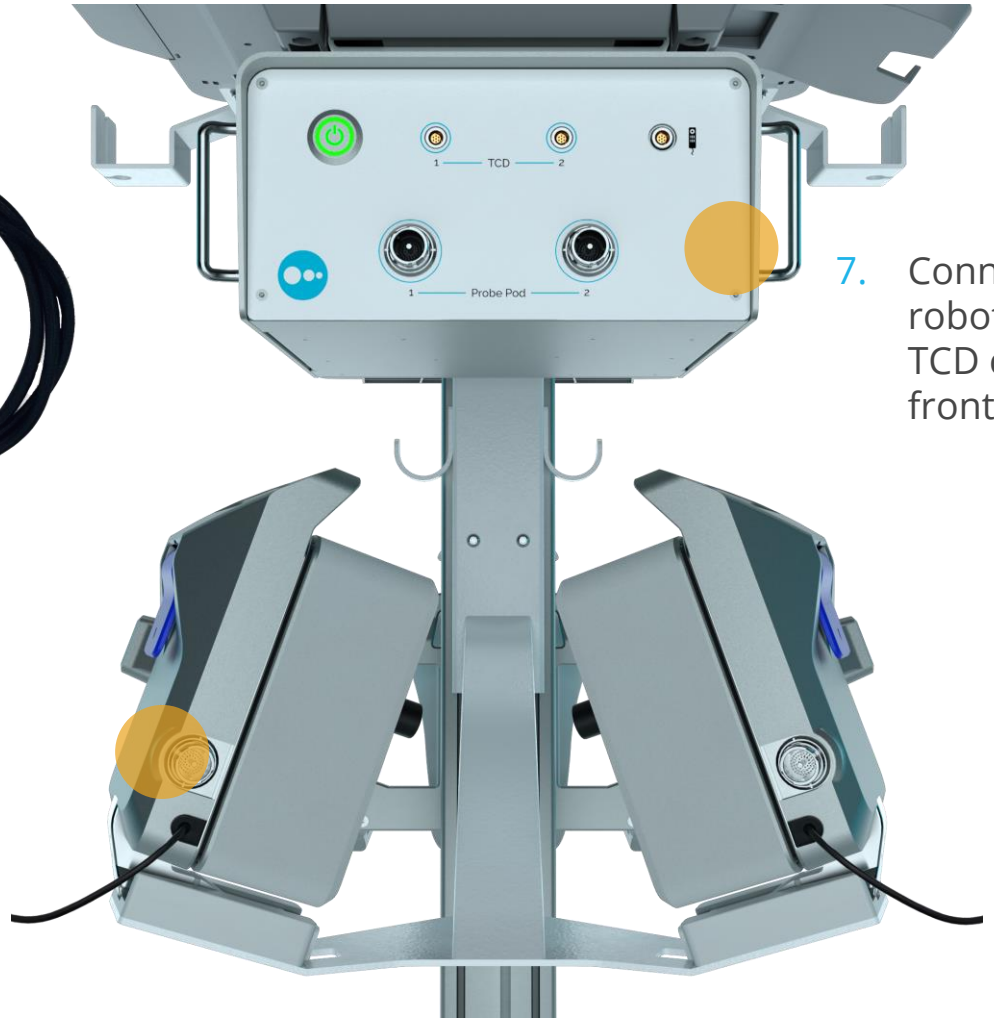
3. Log in with your username and password

4. Add a patient, or search for an existing patient

5. Select an exam type

System Preparation

6. Connect the robot cables to the probe pods

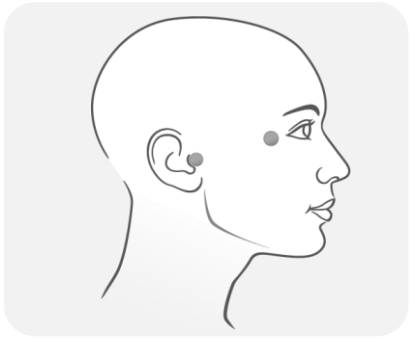


7. Connect the robot cables and TCD cables to the front of the DRU

8. Press “Probe Pod Check” on the screen
Note: The probe pods must be in the vertical position to conduct the check

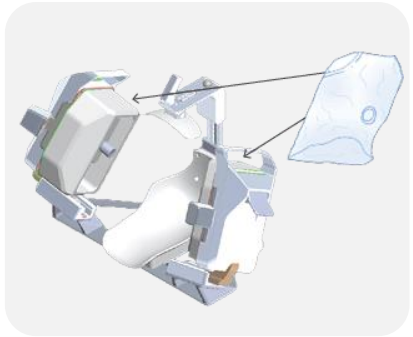
Patient Setup

9. Follow the on-screen instructions for assembling the NovaKit 2 and placing the registration dots and patient head unit on the patient

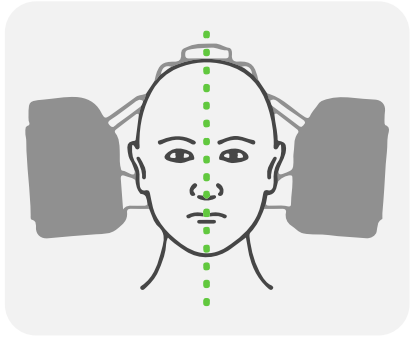


Registration dots are applied on the tragus and at the corner of the eye, then ultrasound gel is applied

Place foam on the head cradle and forehead restraint



Place protective bags over the probe pods, ensuring that they don't block the registration cameras



Lay the patient in the head cradle and align the head brace and cradle with the center of the chest. Use laser to confirm alignment with head and nose.

Patient Setup

10. Advance the probe pods until they touch the patient. When they are in the right location, both the LED lights on the probe pods and the probes on the screen will turn green. Press Next.

11. When the cameras detect the registration dots press “Start Exam”. Ensure that the probe pod bags are not in front of the cameras.

Performing an Exam

Press “Probe Pod Controls” to see a list of signals

Pressing “Abort” will immediately stop the exam and retract the probes

Press “Exit Exam” to end the exam and go to the Review screen

Post-Exam

- Remove the forehead restraint.
- Flip the quick-lock latches up and slowly slide the probe pods off the rails.
- Carefully lift the head cradle from the patient's head.
- Wipe gel from the patient's head and probes.
- Wipe the head cradle components with a clean damp cloth. Avoid using alcohol as this may damage the probes.
- Remove the foam from the head cradle and forehead restraint and discard.
- Power down the AIO by pressing and holding the power button for 3 seconds
- Power down the DRU by pressing the power button on the front of the unit

NeuraSignal™

NovaGuide™ 2 Intelligent Ultrasound

NovaGuide 2 Intelligent Ultrasound is a medical ultrasound system intended for use as an adjunct to standard clinical practices for measuring and displaying cerebral blood flow velocity and the occurrence of transient emboli within the bloodstream. The system assists the user in the setup and acquisition of cerebral blood flow velocity via the patient's temporal windows.

NovaGuide 2 Intelligent Ultrasound is intended to be used by healthcare professionals qualified by training in its safe and effective use. The device is not intended to replace other means of evaluating vital patient physiological processes, is not intended to be used in fetal applications, and is not intended to be used inside the sterile field.