node

Instructions for Use

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noddle®



The noddle[®] is a smart switch that detects small intentional gestures with a sensor, giving a user with communication and access barriers the ability summon help and control a speech generating device. The noddle[®] uses patented gesture detection algorithms and counts the number of gestures a user has produced.



noddle[®] sensors



Each noddle[®] sensor is designed to capture a minimal movement or gesture that a user can produce. The sensors are designed to plug directly into the *input* jack of the noddle® and are designed for a range of mounting options.

J-Mic Sensor & Mounting



The J-Mic sensor has both cervical collar and head strap mounting capabilities. Ensure that the microphone is properly positioned so that the patient can easily activate the noddle with a tongue click. Patients should be encouraged (if able) to use the type of tongue click which is better received by the noddle and allows for successful, repeated activation.



Vent Mic Sensor & Mounting

When attaching the Vent-Mic to a patient, the sensor can only be attached to the vent line for patients who are orally intubated.

The Vent Mic should easily snap on the vent line. Ensure that the microphone is properly positioned so that the patient can easily activate the noddle with a tongue/mouth click. Encouraged patients to use the type of tongue click which is better received by the noddle and allows for successful, repeated activation.









Bed Touch Sensor & Mounting

The Bed-Touch sensor is a low force proximity sensor that can be used by patients with limited motor capabilities. Patients can hover over the sensor, and must move off the sensor to reactivate.

The Bed-Touch can be clipped to bedding or clothing with clips. It can also be mounted on a pillow using a pillow strap. In both cases, care must be taken to ensure that the patient is able to access the sensor.







J-Touch Sensor & Mounting



The J-Touch Sensor has both cervical collar and head strap mounting capabilities. When using the J-Touch, position the sensor near the patient's cheek and ensure that it can be activated when the patient's tongue is pressed against his or her cheek.



Powering the noddle®



The noddle® can be powered and the battery be charged by connection to the provided external DC power supply. To charge and/or power the noddle, plug the provided DC charging module (5V/1.2A DC) into the micro-USB jack on the the device.



noddle[®] Setup: Input Side Jacks



The noddle[®] input jack red light indicating sensor not plugged in.



The noddle [®] input indicating sensor is plugged in correctly. noddle will beep/flash with each successful patient gesture.



noddle[®] Setup: Output Side Jacks





RH-AACLAB LLC

Using row-column scanning to navigate and select on speech generating devices.

Each gesture allows a user to scan:

gesture steps through rows or icons
gestures selects a row or icon



* The timing of the two gestures for selection are deliberate and slower than a mouse "double-click". This allows patients with tremors or limited motor skills access to noddle-chat[™] and nurse call.



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Connecting the noddle[®] to a speech generating device via Bluetooth[®]







Each noddle[®] device has a unique Bluetooth[®] pairing code located on the back of the noddle[®]. **SGD Bluetooth® Settings:** Enable Bluetooth® in devices settings on the SGD device and scan and connect to the noddle®.

Pairing: Pairing mode may be initiated on the noddle by depressing the Bluetooth® pairing button on the side of the noddle for at least 2 seconds. The front indicator light will flash blue and the noddle will then be visible as an option for pairing on a tablet or SGD. The front indicator light will flash blue until a connection has been established.

Bluetooth® output: The noddle® sends a space character in response to a single gesture, **newline/return character** in response to two successive gestures, and a **lowercase 'u'** in response to three successive gestures. It is essential that those match the expected characters on the application running on the paired SGD device.

Troubleshooting noddle® Output Connections



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Cables to SGD

If an SGD is being used that does not have Bluetooth[®] connectivity and the noddle is responding to the sensor (the selection LED is blinking appropriately) but is not activating the SGD, check the cable connection on the output jacks on the noddle and on the SGD. If the connections are secure, try replacing the cables. Finally if there is still no activation of the SGD, power cycle the noddle and check the SGD switch settings.



Powering the noddle[®] from the internal rechargeable battery



The noddle[®] has an internal Lithium-Ion rechargeable battery (3.7V, 580 mAh). The approximate power cycle length is 15 hours. The noddle[®] battery can be charged by connecting the provided charging module to the noddle[®]. The noddle[®] may be used while the battery is charging.

While in operation under battery power, the noddle should be periodically checked for low battery charge. This is indicated by a repeated red flashing of the main input indicator light accompanied by a repeated beeping tone.



Troubleshooting noddle[®] Output Connections





When the Nurse call cable is plugged into the #3 output jack, the user will need to produce 3 gestures to activate the call light.

Cable to Nurse Call

If the noddle[®] is responding to the sensor and the selection LED is blinking appropriately) but is not activating the nurse call system, check the cable connection on the output jack of the noddle[®] and at the headwall connection to the nurse call system. If the connections are secure but there is still no activation of the nurse call, power cycle the noddle, check that the call system is active and try replacing the cable.



Troubleshooting noddle[®] Output Connections





Bluetooth[®]

If the SGD linked to the noddle via Bluetooth[®] is not responding, check that the Bluetooth[®] is connected. To prevent losing the connection with a paired device, it is important to set the AutoLock on those devices to the "Never" setting. Many devices drop their Bluetooth[®] connection when they go into sleep mode or are turned off. In those cases, it may be necessary to re-connect the noddle with those devices.



noddle[®] Hardwire Connection



To connect a noddle[®] switch to your SGD, plug its 3.5mm jack(s) into one of the switch ports on your SGD. (These are labelled S1 and S2 respectively).



Device Specific Connection Instructions



SmartBox Devices

TALKPAD iOS Device



TOUCHPAD iOS Device



GRIDPAD Windows Eyegaze Device





Smartbox TouchPad (Windows device) 1 switch auto scanning mode

- 1) In Windows Settings turn on Bluetooth and or other Device" then pair with noddle.
- 2) In Grid Settings select Access then Switches/Configuration and select "connection" and select "keyboard"
 - a) Highlight switch 1 and select "change key"; tap noddle sensor onceswitch 1 will then be set to "space"
- 3) In Grid Settings select Access then Switches
 - a) In Advance select "Automatically Advance" and select "automatically advance" and adjust "advance every" to the desired scan rate.
 - b) In Activate select "switch 1"



Smartbox TouchPad (Windows device) 2 switch row/column scanning mode

- 1) In Windows Settings turn on Bluetooth and or other Device" then pair with noddle.
- 2) In Grid Settings select Access then Switches/Configuration and select "connection" and select "keyboard"
 - 1) Highlight switch 1 and select "change key"; tap noddle sensor once- switch 1 will then be set to "space"
 - 2) Highlight switch 2 and select "change key"; tap noddle sensor twice- switch 2 will then be set to "enter"
- 3) In Grid Settings select Access then Switches
 - 1) In Advance select "Scan rows then cells" and select "tap to Advance" and select Switch 1 to "Advance Scan"
 - 2) In Activate select "Switch 1"



Smartbox TalkPad (iOS device) 1 switch auto scanning mode

1) In ipad Settings turn on Bluetooth and pair with noddle.

- 2) In ipad Settings/ Accessibility "add new switch" then select "external" and name the switch (e.g. 1) and then set "default action" to "tap"
- 3) In ipad Settings/ Accessibility set "Scanning Style" to "Auto"
- 4) In ipad Settings/ Accessibility set "Auto Scanning Time" to desired scan rate.



Smartbox TalkPad (iOS device) 2 switch row/column scanning mode

- 1) In ipad Settings turn on Bluetooth and pair with noddle.
- 2) In ipad Settings/ Accessibility "add new switch" then select "external" and name the switch (e.g. 1) and then set "default action" to "move to next item"
- 3) In ipad Settings/ Accessibility "add new switch" then select "external" and name the switch (e.g. 2) and then set "default action" to "tap"
- 4) In ipad Settings/ Accessibility set "Scanning Style" to "Manual"



Smartbox GridPad (Windows device) Bluetooth: 1 switch auto scanning mode

- 1) In Windows Settings turn on Bluetooth and or other Device" then pair with noddle.
- 2) In Grid Settings select Access then Switches/Configuration and select "connection" and select "keyboard"
 - a) Highlight switch 1 and select "change key"; tap noddle sensor onceswitch 1 will then be set to "space"
- 3) In Grid Settings select Access then Switches
 - a) In Advance select "Automatically Advance" and select "automatically advance" and adjust "advance every" to the desired scan rate.
 - b) In Activate select "switch 1"



Smartbox GridPad (Windows device) Bluetooth: 2 switch row/column scanning mode

- 1) In Windows Settings turn on Bluetooth and or other Device" then pair with noddle.
- 2) In Grid Settings select Access then Switches/Configuration and select "connection" and select "keyboard"
 - 1) Highlight switch 1 and select "change key"; tap noddle sensor once- switch 1 will then be set to "space"
 - 2) Highlight switch 2 and select "change key"; tap noddle sensor twice- switch 2 will then be set to "enter"
- 3) In Grid Settings select Access then Switches
 - 1) In Advance select "Scan rows then cells" and select "tap to Advance" and select Switch 1 to "Advance Scan"
 - 2) In Activate select "Switch 1"



Smartbox GridPad (Windows device) Hardwired: 1 switch auto scanning mode

- 1) Connect noddle output port #1 to GridPad Switch 1 input
- 2) In Grid Settings select Access then Switches/Configuration and select "connection" and select "GridPad Switches"
 - a) Highlight switch 1 and tap noddle sensor once- switch 1 will turn green.
- 3) In Grid Settings select Access then Switches
 - a) In Advance select "Automatically Advance" and select "automatically advance" and adjust "advance every" to the desired scan rate.
 - b) In Activate select "switch 1"



Smartbox GridPad (Windows device) Hardwired: 2 switch row/column scanning mode

- 1) Connect noddle output ports #1 and #2 to GridPad Switch 1 and 2 input, respectively.
- 2) In Grid Settings select Access then Switches/Configuration and select "connection" and select "GridPad Switches"
 - a) Highlight switch 1 and tap noddle sensor once- switch 1 will turn green.
 - b) Highlight switch 2 and tap the noddle sensor twice- switch 2 will turn green.
- 3) In Grid Settings select Access then Switches
 - 1) In Advance select "Scan rows then cells" and select "tap to Advance" and select Switch 1 to "Advance Scan"
 - 2) In Activate select "Switch 2"



Smartbox GridPad (Windows device) Hardwired: Eyegaze with Switch Selection

- 1) Connect noddle output port #1 to GridPad Switch 1 input
- 2) In Grid Settings select Access then Switches/Configuration and select "connection" and select "GridPad Switches"
 - a) Highlight switch 1 and tap noddle sensor once- switch 1.
- 3) In Grid Settings select Access then Eyegaze
 - a) In Activation
 - b) In Activate select "switch 1"
 - c) Set "Dot in Cell" and "Show large gaze dot"



Smartbox GridPad (Windows device) Bluetooth: Eyegaze with Switch Selection

- 1) In Windows Settings turn on Bluetooth and or other Device" then pair with noddle.
- 2) In Grid Settings select Access then Switches/Configuration and select "connection" and select "keyboard"
 - a) Highlight switch 1 and select "change key"; tap noddle sensor onceswitch 1 will then be set to "space"
- 3) In Grid Settings select Access then Eyegaze
 - a) In Activation
 - b) In Activate select "switch 1"
 - c) Set "Dot in Cell" and "Show large gaze dot"



PRC-Saltillo Devices

Novachat Android Device



Accent Windows Device



Via Pro iOS Device



TouchChat HD iOS app





PRC-Saltillo NovaChat (Android Devices) Bluetooth 1 switch scanning mode

- 1) In Android Settings turn on Bluetooth and pair with noddle.
- 2) In Application Settings select "Input" then select "Scanning" and "Enable Scanning". Select "Switch Access" then select "Switch Configuration" and select "One Switch". Tap "Switch 1" then activate the noddle once. The Key should then be set to "SPACE". Finally set "Auto Scan" on.
- 3) In Application Settings/ select "Pattern" then "Mode" and select the type of scanning (Linear, Row/Column, Block or Flow).
- 4) In Application Settings Select "Scan Speed" to set auto scanning rate. Accessibility set "Auto Scanning Time" to desired scan rate also set "Activation Rate" to 0.0 sec.

PRC-Saltillo NovaChat (Android app) Bluetooth 2 switch scanning mode

1) In Android Settings turn on Bluetooth and pair with noddle.

- 2) In Application Settings select "Input" then select "Scanning" and "Enable Scanning". Select "Switch Access" then select "Switch Configuration" and select "Two Switch". Tap "Switch 1" then activate the noddle once. The Key should then be set to "SPACE". Then Tap "Switch 2" and then activate the noddle twice. The Key should then be set to "ENTER".
- 3) In Application Settings/ select "Pattern" then "Mode" and select the type of scanning (Linear, Row/Column, Block or Flow).
- 4) In Application Settings Select "Scan Speed" to set auto scanning rate. Accessibility set "Auto Scanning Time" to desired scan rate also set "Activation Rate" to 0.0 sec.



PRC-Saltillo NovaChat (Android Devices) Hardwired 1 switch scanning mode

- 1) Connect the noddle output port #1 to NovaChat Switch A input.
- 2) In Application Settings select "Input". Select "Timing" and turn off both "Acceptance Time " and "Release Time" as well as "Activate on Release". Then select "Scanning" and set "Enable Scanning". Select "Switch Access" then select "Switch Configuration" and select "One Switch". Tap "Switch 1" then activate the noddle once. The Key should then be set to "SPACE". Finally set "Auto Scan" on.
- 3) In Application Settings/ select "Pattern" then "Mode" and select the type of scanning (Linear, Row/Column, Block or Flow).
- In Application Settings Select "Scan Speed" to set auto scanning rate. Accessibility set "Auto Scanning Time" to desired scan rate also set "Activation Rate" to 0.0 sec.



PRC-Saltillo NovaChat (Android app) Hardwired 2 switch scanning mode

- 1) Connect the noddle output port #1 to NovaChat Switch A input and noddle output port #2 to NovaChat Switch B input.
- 2) In Application Settings select "Input". Select "Timing" and turn off both "Acceptance Time " and "Release Time" as well as "Activate on Release". Then select "Scanning" and then set "Enable Scanning". Select "Switch Access" then select "Switch Configuration" and select "Two Switch". Tap "Switch 1" then activate the noddle once. The Key should then be set to "SPACE". Then Tap "Switch 2" and then activate the noddle twice. The Key should then be set to "ENTER".
- 3) In Application Settings/ select "Pattern" then "Mode" and select the type of scanning (Linear, Row/Column, Block or Flow).
- 4) In Application Settings Select "Scan Speed" to set auto scanning rate. Accessibility set "Auto Scanning Time" to desired scan rate also set "Activation Rate" to 0.0 sec.



PRC-Saltillo Via Pro & TouchChat (iOS app) Bluetooth 1 switch auto scanning mode

1) In ipad Settings turn on Bluetooth and pair with noddle.

- 2) In ipad Settings/ Accessibility turn on "Switch Control" then select "add new switch" then select "external" and name the switch (e.g. 1) and then set "default action" to "tap"
- 3) In ipad Settings/ Accessibility set "Scanning Style" to "Auto"
- 4) In ipad Settings/ Accessibility set "Auto Scanning Time" to desired scan rate.



PRC-Saltillo Via Pro & TouchChat (iOS app) Bluetooth 2 switch row/column scanning mode

- 1) In ipad Settings turn on Bluetooth and pair with noddle.
- 2) In ipad Settings/ Accessibility turn on "Switch Control" then select "Switches" and then Add New Switch" then select "External" and name the switch (e.g. 1) and then set "default action" to "move to next item"
- 3) In ipad Settings/ Accessibility "add new switch" then select "external" and name the switch (e.g. 2) and then set "default action" to "tap"
- 4) In ipad Settings/ Accessibility set "Scanning Style" to "Manual"



PRC-Saltillo Via Pro (iOS Device) Hardwired 1 switch auto scanning mode

- 1) Connect noddle output port #1 to the Accent Switch A input
- 2) In ipad Settings/ Accessibility turn on "Switch Control" then select "Switches" then set "Switche A" to "Tap"
- 3) In ipad Settings/ Accessibility set "Scanning Style" to "Auto"
- 4) In ipad Settings/ Accessibility set "Auto Scanning Time" to desired scan rate.



PRC-Saltillo Via Pro (iOS Device) Hardwired 2 switch row/column scanning mode

- 1) Connect noddle output ports #1 and #2 to the Accent Switch A and B input, respectively.
- 2) In ipad Settings/ Accessibility turn on "Switch Control" then select "Switches" then set "Switche A" to "Move to Next Item" and "Switch B" to "Tap"
- 3) In ipad Settings/ Accessibility set "Scanning Style" to "Manual"



PRC-Saltillo Accent Empower(Windows device) Hardwired: 1 switch auto scanning mode

- 1) Connect noddle output port #1 to the Accent Switch A input
- 2) In Accent Toolbox "User Settings" select "Access Method" then select "Scanning".
- 3) In the "Configure" tab set "Number of Switches" to "1" and "Scan Type" to "Auto" and then select the desired "Scan Pattern" (Linear or Row/column).
- 4) In the "Timings" tab select the desired "Scan Speed". "Switch Selection Time" should be set to "0" and "Next Switch Selection Delay" can be set to "0.5"
- 5) In the "Settings" tab you can select whether to automatically restart the scan box after a selection as well as the number of rescans if no selection is made.



PRC- Saltillo Accent Empower (Windows device) Hardwired: 2 switch row/column scanning mode

- 1) Connect noddle output ports #1 and #2 to the Accent Switch A and B input, respectively.
- 2) In Accent Toolbox "User Settings" select "Access Method" then select "Scanning".
- In the "Configure" tab set "Number of Switches" to "2" and "Scan Type" should be set to "Step" and then select the desired "Scan Pattern" (Linear or Row/column).
- 4) In the "Timings" tab "Switch Selection Time" should be set to "0" and "Next Switch Selection Delay" can be set to "0.5". "Automatically Reset Scan" can be set off; if "on" is selected then set "Scan Reset Time" to the duration the scan box should remain active when no selection is made.
- 5) There are no settings to be selected under the "Settings" tab.



PRC-Saltillo Accent Nuvoice (Windows device) Hardwired: 1 switch auto scanning mode

- 1) Connect noddle output port #1 to the Accent Switch A input
- 2) In Toolbox "User Settings" select "Access Method Menu" then select "Choose Different Access Method" and select "1 Switch" and then select the desired scan pattern ("1 switch auto scan, row/column" or "1 Switch Auto Scan Linear")
- 3) Then set the "Scanning Speed" the desired duration and both "Acceptance Time" and "Release Time" to 0.01. Set "Number of Rescans" to the desired number should no selection should be made. The remaining options can be set to "Off".



PRC- Saltillo Accent NuVoice (Windows device) Hardwired: 2 switch row/column scanning mode

- 1) Connect noddle output ports #1 and #2 to the Accent Switch A and B input, respectively.
- 2) In Toolbox "User Settings" select "Access Method Menu" then select "Choose Different Access Method" and select "2 Switch" and then select the desired scan pattern ("2 switch step scan, row/column" or "2 Switch Step Scan Linear")
- 3) Then set both "Acceptance Time" and "Release Time" to 0.01. The remaining options can be set to "Off"



Tobii Dynavox Windows and iOS Devices

TD I-100



TD I-13/16



SC Tablet



TD Pilot





I-110 (Windows device) 1 switch auto scanning mode

1) In Windows Settings turn on "Bluetooth and or other Device" then pair with noddle.

1) In TD Snap Settings:

- 1) Select User
- 2) Select Access Method
- 3) Select Scanning
- 4) Select Scan Type 1 Switch Autoscan
- 5) Select Scan Behavior: Linear
- 6) Select Done.



I-110 (Windows device) 2 Switch Step Scan

- 1) In Windows Settings turn on "Bluetooth and or other Device" then pair with noddle.
 - 1) Select User
 - 2) Select Access Method
 - 3) Select Scanning
 - 4) Select 2 Switch Step Scan Switch one is automatically set to 'space'. Switch 2 input is automatically set to 'enter'.
 - 5) Select Done.



SC-Tablet (iOS device) 1 switch auto scanning mode

1) In iPad Settings turn on "Bluetooth and or other Device" then pair with noddle.

1) In TD Snap Settings:

- 1) Select User
- 2) Select Access Method
- 3) Select Scanning
- 4) Select Scan Type 1 Switch Autoscan
- 5) Select Scan Behavior: Linear
- 6) Select Done.



SC-Tablet (iOS device) 2 switch Step Scan mode

1) In iPad Settings turn on "Bluetooth and or other Device" then pair with noddle. On TD Snap Start up:

- 1) Create user
- 2) Under "Select Access method" Select "Scanning".
- 3) Choose voice and grid size as desired. Select Done.
- 1) In TD Snap Settings:
 - 1) Select User
 - 2) Select Access Method
 - 3) Select Scanning
 - 4) Select 2 Switch Step Scan
 - 5) Select Scan Behavior: Linear
 - 6) Select Done.



SC-Tablet (iOS device) 1 switch Row/Column Scan mode

1) In iPad Settings turn on "Bluetooth and or other Device" then pair with noddle.

On TD Snap Start up:

1) Create user

2) Under "Select Access method" Select "Scanning".

3) Choose voice and grid size as desired. Select Done.

Under Snap Settings: Select "User".

1) Select Access Method.

- 2) Select 1 Switch Step Scan
- 3) Select Scan Behavior. Select Pattern. Select: Row/Column

4) Select Done.



Using noddle to select when using eyegaze on TD I-13/16 or TD Pilot

- 1.Connect device to the noddle via Bluetooth Settings
- 2.Open TD Snap
- 3.Select Edit
- 4.Select User Tab
- 5.Select Access method
- 6.Select eye gaze
- 7.Under selection type, select 'switch'
- 8.Select done



The noddle® and sensors can be cleaned and disinfected with PDI Germicidal Disposable Wipes (http://pdihc.com/all-products)



Follow instructions for use of the wipes for appropriate germicidal effect. Care should be taken to prevent excess liquid from spilling into the connector jacks on the noddle.



The noddle[®] sensors are designed to be used by a *single user*.



For Assistance Contact

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