# Braille Without a Braille Display: Braille Screen Input and More

Presented by Matthew Horspool and Chris Norman for the Braillists Foundation, Tuesday 5 July 2022 at 7:30 PM

## Talkback Braille Keyboard

This was released in April 2020 and supports Android 6 or newer. It should be available on new Android devices out of the box and many others via a software update.

Find out more on the Google website: <https://support.google.com/accessibility/android/answer/9728765?hl=en-GB>

### Enabling the Keyboard

1. Go to the Android Accessibility menu, usually by swiping down and right.
2. Go to Talkback Settings/Braille Keyboard/Setup Braille Keyboard.
3. Tap Settings.
4. Find "Talkback Braille Keyboard" in the list and toggle it on.

An additional settings screen will appear.

### Using the Keyboard

In a text area, an option to switch keyboards should appear at the bottom right hand corner. Alternatively you can create a custom gesture to switch to the Talkback Braille Keyboard.

### Keyboard Options

In Talkback Settings/Braille Keyboard/Setup Braille Keyboard you will find a number of options. They are mostly self-explanatory and include:

* Typing languages: braille grade is also set here
* Preferred language: choose from the languages selected using the setting above
* Layout: automatic, screen away or tabletop
* Include all pressed dots: if you type a braille cell and release some dots before others, whether the dots released first should be counted
* Reverse dot positions: place dots 1, 2 and 3 on the right and 4, 5 and 6 on the left

To change keyboard echo, go to Talkback settings/Verbosity and adjust the "Keyboard Echo – On-Screen Keyboard" setting as desired – characters, words, both or none.

### Gestures

* Space: swipe right
* New line: swipe right with two fingers
* Delete a character: swipe left
* Delete a word: swipe left with two fingers
* Move back one character: swipe up
* Move forward one character: swipe down
* Send: swipe up with two fingers
* Dismiss the keyboard: swipe down with two fingers

## iOS

This was released as part of iOS 8 in September 2014. It is therefore available on devices as old as the iPhone 4S, released in 2011.

Find out more on the Apple website: <https://support.apple.com/en-us/HT210066>

### Enabling Braille Screen Input

1. Go to Settings/Accessibility/Voiceover/Rotor.
2. Find "Braille Screen Input" in the list and toggle it on.

### Using Braille Screen Input

Use the rotor to activate Braille Screen Input.

To dismiss the keyboard, either rota away or two finger scrub.

### Braille Screen Input Options

Braille grade and reversal of dot positions can be found at Settings/Accessibility/Voiceover/Braille/Braille Screen Input.

Braille code can be found at Settings/Accessibility/Voiceover/Braille/Braille Tables.

Keyboard echo can be found at Settings/Accessibility/Voiceover/Typing/Typing Feedback/Braille Screen Input.

Remaining options should be set using gestures.

### Gestures

* Space: swipe right
* New line: swipe right with two fingers
* Delete a character: swipe left
* Delete a word: swipe left with two fingers
* Toggle braille grade: swipe left or right with three fingers
* Send: swipe up with three fingers
* Lock/unlock orientation (to change from tabletop to screen away mode and vice-versa): swipe down with three fingers

### Brailling Emojis and Longer Phrases

Text replacements configured for the normal keyboard will also work in Braille Screen Input. Find them at Settings/General/Keyboard/Text Replacement.

For emojis, you will need to assign an uncommon string to each emoji character, e.g. \*\*smile for a smiling face.

Alternatively, braille the full name of the emoji (e.g. "Smiling face"), leave Braille Screen Input, switch to the Emoji keyboard, rota to replacements and proceed accordingly.

## Amazon Fire

This was not demonstrated during the Masterclass, but you can find more information on the Amazon website at: <https://www.amazon.co.uk/gp/help/customer/display.html?nodeId=201829370>

## Concepts Common to All Touch Screens

### Keyboard Layouts

Tabletop Mode mimics a Perkins Brailler. The dots are arranged horizontally, with dots 3, 2 and 1 on the left and 4, 5 and 6 on the right.

Screen Away mode is closer to a Stainsby or a Hable 1. The dots are arranged vertically as per the braille cell – dots 1, 2 and 3 top to bottom down the left hand side, and 4, 5 and 6 top to bottom down the right hand side, with the screen facing away from you.

## Braille Entry on Windows and Mac

### Perky Duck

This is a free program for Windows and Mac which allows you to enter braille using the F, D, S and J, K, L keys on your keyboard. The braille is not translated, but the program is still useful in environments where braille first entry is required, e.g. when taking a distance learning braille course or preparing braille music for embossing.

It can be downloaded from Duxbury's website at: <https://www.duxburysystems.com/perky.asp>

### BrailleZephyr

This is similar to Perky Duck, developed by the American Printing House for the Blind. Find it at: <https://www.brailleblaster.org/braillezephyr.php>

### PC Keyboard Braille Input

This is an add-on for NVDA, which does support back translation. Find it at: <https://addons.nvda-project.org/addons/pcKbBrl.en.html>