Skoog and Swift Playgrounds

Swift Playgrounds is an educational coding app for iPad. It now offers an exciting new way to learn to code using robots, drones and musical instruments. Swift Playgrounds is ideal for students and beginners learning to code with Swift, Apple's powerful and intuitive programming language for building world-class apps.
https://www.apple.com/swift/playgrounds/

The Skoog Playground

Create and control your own musical instrument using real Swift code with our new Skoog playground for Apple's Swift Playgrounds. With specialised lessons for iPad, Skoog and Swift Playgrounds allow students to write code and see it comes to life in the physical world.

Learn about notes, octaves, input devices, animation and find out how to use event handlers and change thresholds to adjust how your code responds to presses and squeezes on your Skoog. Experiment with echoes, physics, and musical harmony using an interactive musical buddy called 'Ping'.

How to use Skoog with Swift Playgrounds

Make sure your iPad is updated to the latest version of iOS and connected to the internet. You can check what iOS version you have by going to Settings -> General -> Software Update. And install the update.

Then install Swift Playgrounds from the App store, and open the app. Go to 'My Playgrounds' scroll down to 'More Playgrounds' and select 'See All'. Find Skoogmusic then tap the GET button.

Open the Skoog playground then follow the directions to connect your Skoog and get coding

Skoog, music, coding and inclusion:

Coding and music are the perfect mix. Music is the organisation of sound, and much of this organisation is done according to logical mathematical principles. Skoogmusic's playground taps into this logic in way that will help you explore coding in a creative way.
Music is a social activity. With Swift Playgrounds and Skoogmusic your class can learn, create and play together as a group. The unique accessibility features of Skoog means that everyone is included.

Learning routes:

Students can use the coding skills picked up in the Learn to Code playgrounds to create their own musical instrument with Swift code and Skoog. After exploring the Skoog playground students can use the Skoog cube as an input controller for their own projects (including other connected accessories e.g. Parrot, Sphero).

Skoog currently supports connection, via Swift Playgrounds, to Sphero Spark and Bolt, Jimu MeBot and Wonder workshop Dash. These additional playgrounds can be accessed via the Skoogmusic playground feed.

Students will also learn and play with elements of music theory (Notes, Scales and Chords) and basic music technology (MIDI notes, Sound Styles). They can even create their own performance. Experiment with echoes, physics, and musical harmony using an interactive musical buddy called 'Ping'.

The Skoog playground is made up of a series tasks that build on what is learned through each activity. Starting off with Skoog as an input device and some simple musical concepts, these build to more complex and engaging activities to produce and control animation and interactive screen elements. There are several activities that can be seen as 'stand alone' coding STEM activities for younger learners or those with mixed abilities (namely: Handling your Skoog, Changing the response, What's my sound, meet the band, in the loop and hitting the right note).

Skoog's additional Playgrounds that connect to other devices are also great for younger users or those with accessibility needs. When using Skoog to control a robot or drone students can see (and hear) their code come to life as 'run my code' and experience how their code effects the interaction between Skoog and the devices they are controlling!

Using the Dash playground you can re-create Byte's maze challenges / problem solving for real in the class room. A great inclusive experience for the whole class!

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About Everyone Can Code
Everyone Can Code is a curriculum from Apple that gives everyone the power to learn, write, and teach code. https://www.apple.com/education/teaching-code/

About Swift Playgrounds
Swift Playgrounds is a revolutionary iPad app from Apple that makes learning to code fun and interactive. https://www.apple.com/swift/playgrounds/

About Swift
Swift is a powerful and intuitive programming language created by Apple for building apps for iOS, Mac, Apple TV, and Apple Watch. It makes programming easier, more flexible, and more fun. https://www.apple.com/swift/