

PencilKit

From simple drawings to
custom creative tools

Douglas Hill
iOS team lead,
Nutrient

SwiftLeeds
October 2025



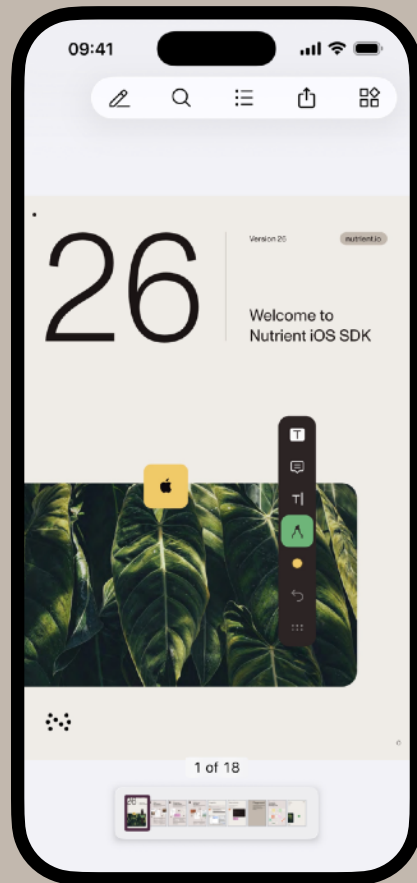
NSL London

a Contacts



Nutrient (formerly PSPDFKit)

```
NavigationStack {  
  PDFView(document: document)  
    .toolbar {  
      DefaultToolbarButtons()  
    }  
    .pdfViewScope(scope)  
}
```

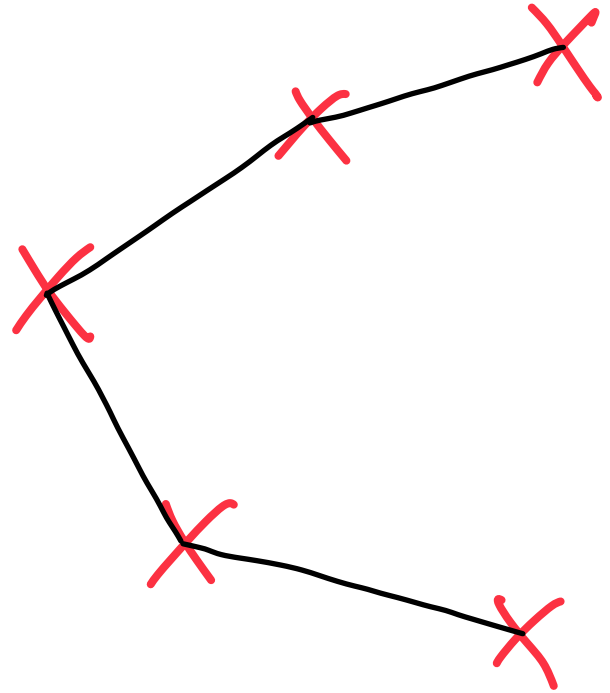


Drawing is hard

- Gesture recogniser
- Bezier paths
- Pressure
- Apple Pencil angle
- 240 Hz sampling rate
- Performance
- Data compression
- Erasing
- Scrolling and zooming
- Undo and redo

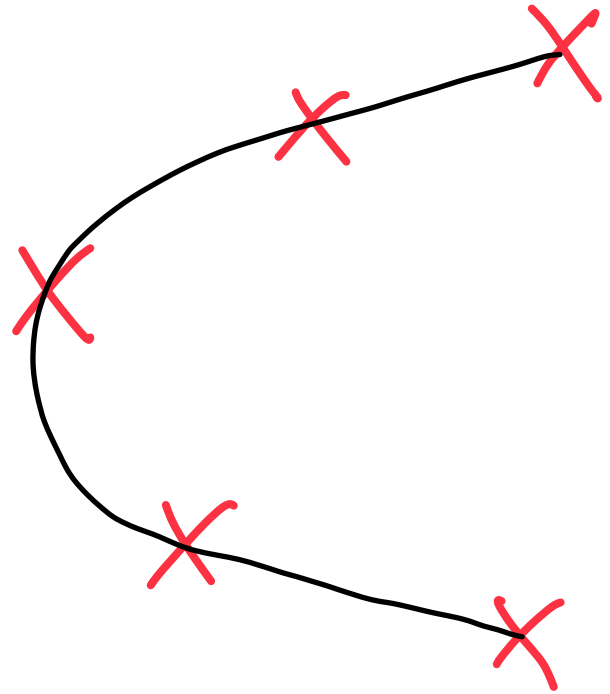
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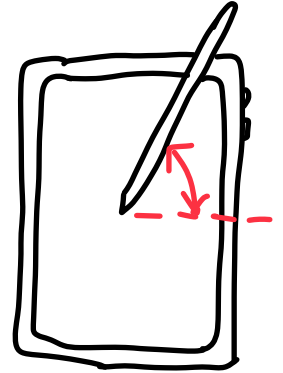
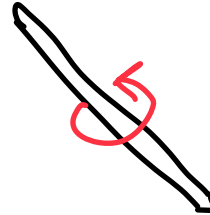
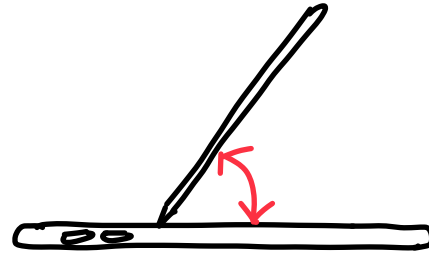
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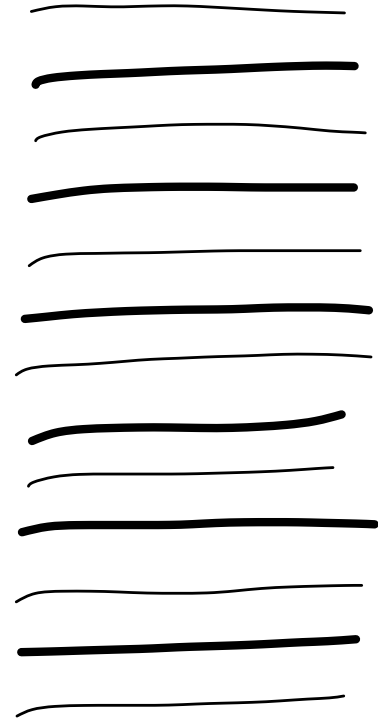
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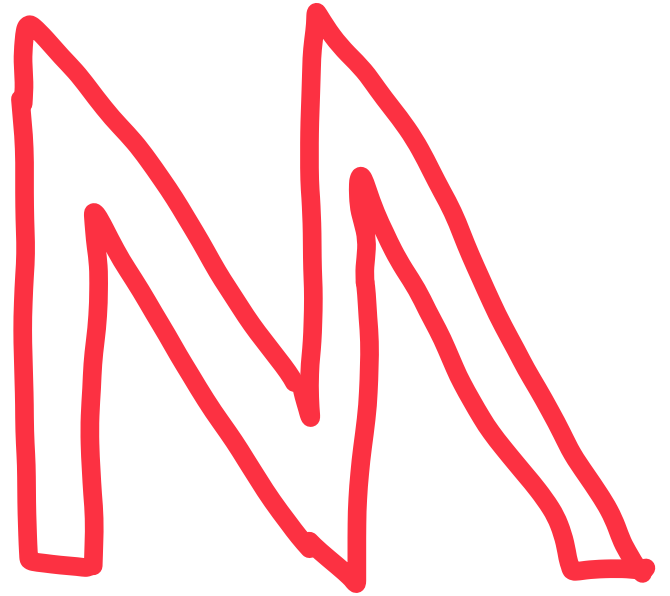
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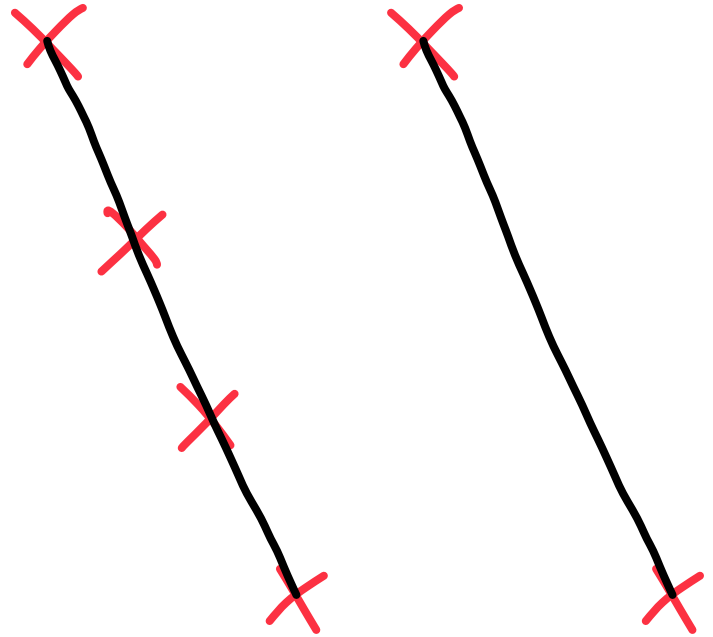
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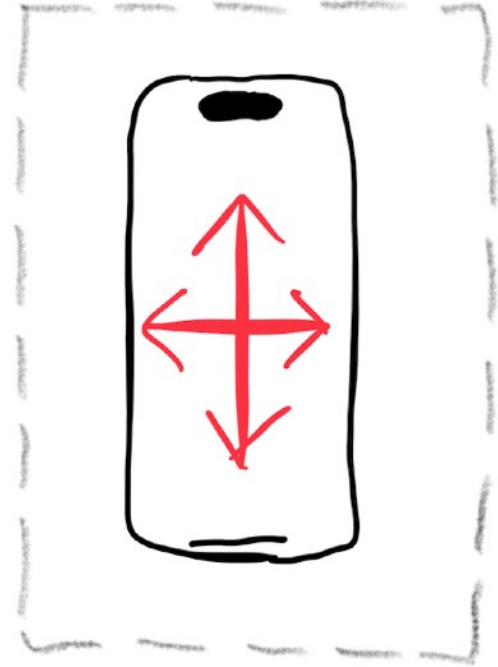
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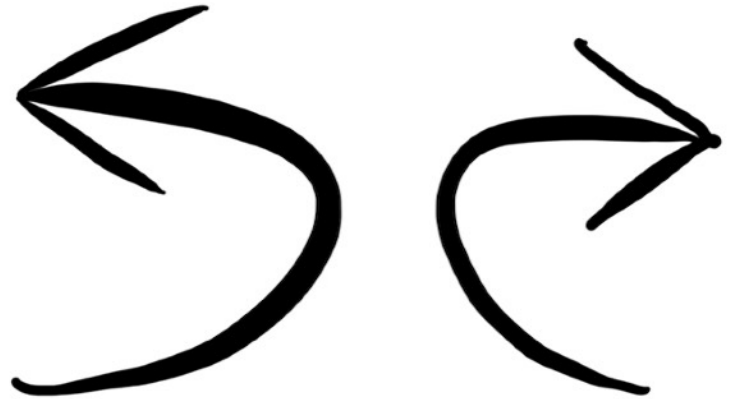
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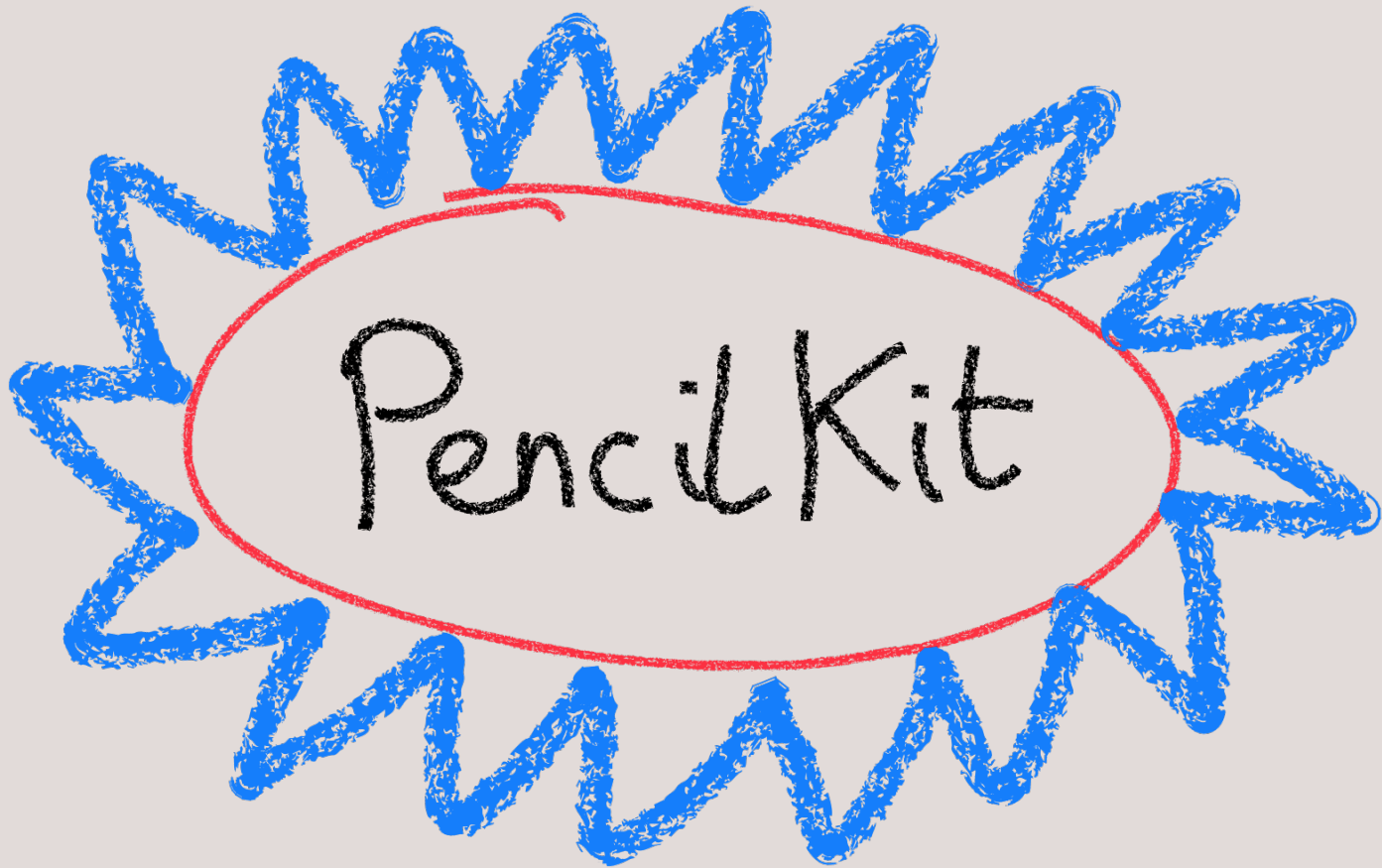
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```
import PlaygroundSupport
import PencilKit

let canvasView = PKCanvasView()
canvasView.tool = PKInkingTool(.crayon, color:
    .purple, width: 10)

PlaygroundPage.current.liveView = canvasView
|
```



PencilKit availability



iPad

Best with Apple Pencil



iPhone

Finger drawing



Apple Vision Pro

Hand drawing



Mac

Mac Catalyst: No tool picker
macOS SDK: No canvas view or tool picker



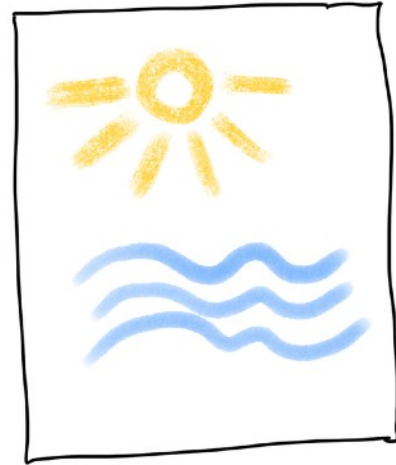
Apple Watch



Apple TV

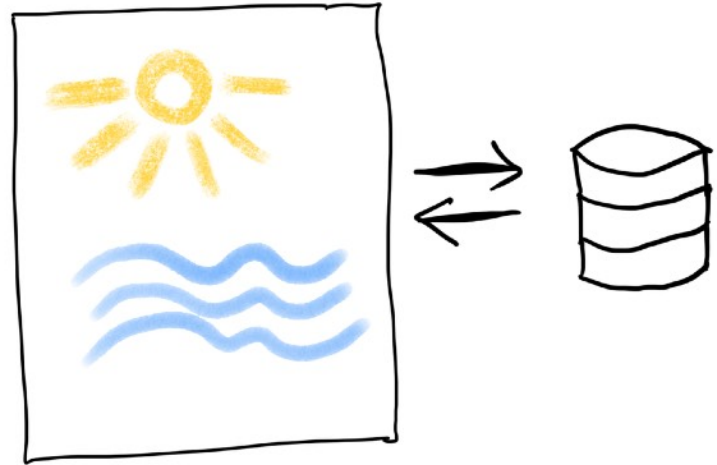
PKDrawing

- Data model
- Snapshot from canvas view
- Serialise
- Render to bitmap
- Fine-grained access to underlying vector stroke data
- Eraser applies a mask to strokes



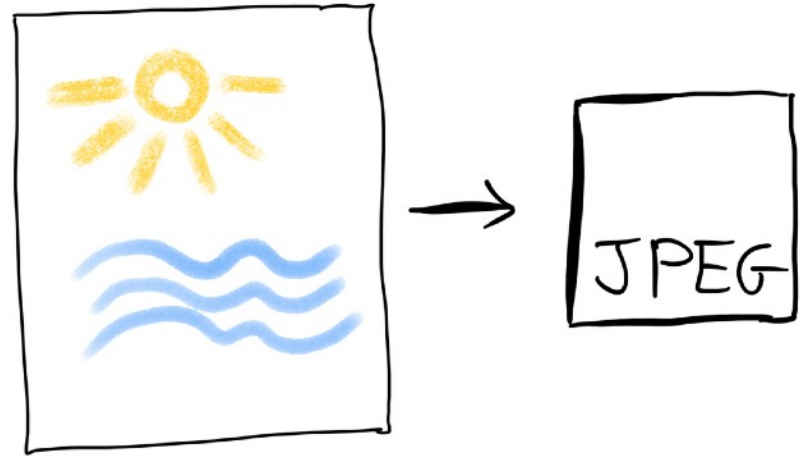
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14:04 Sat 4 Oct



PencilKit playground



PencilKit Playground



```
import PlaygroundSupport
import PencilKit

let canvasView = PKCanvasView()
let toolPicker = PKToolPicker()
toolPicker.setVisible(true, forFirstResponder: canvasView)
toolPicker.addObserver(canvasView)

canvasView.becomeFirstResponder()
|
PlaygroundPage.current.liveView = canvasView
```



Run My Code





PencilKit
with Tool Picker

The image shows a digital drawing application interface. The main canvas contains the text "PencilKit" in black cursive and "with Tool Picker" in blue cursive. Below the canvas is a tool picker bar with icons for eraser, pencil, pencil with pressure, brush, highlighter, highlighter with pressure, fountain pen, and marker. To the right of these tools are color selection options: black, blue, green, yellow, red, and a multi-color wheel, followed by a more options menu.



■ Stop



PKCanvasView



PKToolPickerObserver

PKToolPicker

26

Version 26

nutrientLio

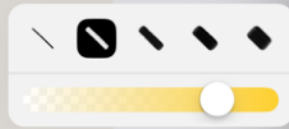
Welcome to
Nutrient iOS SDK

PK ToolPicker



with custom

drawing engine

(Nutrient)



PencilKit

- Drawing is hard 
- PencilKit makes drawing easy 
- PKCanvasView
- PKDrawing
- PKToolPicker
- Modular

PencilKit

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douglashill.co/pencilkit

