

MEDIAN ACADEMY • APP EXPERIENCE SERIES

Haptics:

Building an Amazing App Experience

For CTOs • CISOs • CEOs • Product Owners

Course Overview

1 Introduction to Haptics & The App Advantage

2 Technical Features & The Device Ecosystem

3 Real-World Use Cases in Top Apps

4 The Business Case & ROI for Enterprise

5 Next Steps & Developer Enablement

MODULE 1

Introduction to Haptics & The App Advantage

Define what haptics are and how they differentiate
a native app from a standard mobile website

What Are Haptics?

"Intentionally-timed tactile feedback — felt through device vibrations — that complement visual and auditory cues to create a truly immersive, multi-sensory app experience."



Visual

What users see on screen



Audio

Sounds and alerts



Touch

Haptic feedback — the app advantage

What Makes a Native App Different?



MOBILE WEBSITE

- ✗ Visual interactions only
- ✗ Point-and-click interface
- ✗ No access to device hardware
- ✗ Passive, one-dimensional UX

VS



NATIVE APP

- ✓ Visual + Audio + Touch feedback
- ✓ Multi-sensory, immersive UX
- ✓ Direct access to device hardware
- ✓ Haptics engage mechanoreceptors

Haptics ≠ Push Notifications

SYSTEM PUSH NOTIFICATIONS

- ✗ Happen at the OS level
- ✗ Your phone buzzes in your pocket
- ✗ App does not need to be open
- ✗ Controlled by the operating system

IN-APP HAPTICS

- ✓ Happen inside the active app
- ✓ Carefully choreographed by developers
- ✓ App must be open and in use
- ✓ Full developer control over timing & feel

MODULE 2

Technical Features & The Device Ecosystem

How haptics work, the variables that impact quality,
and the effort required to implement them

Types of Haptic Events

TRANSIENT

A quick, single tap — like a button press or confirmation

CONTINUOUS

Sustained vibration — like a driver arriving or ongoing feedback

Four Core Haptic Functions



Notification

Success / Error alerts



Impact

Drag-and-drop, UI movements



Selection

Scrolling, picking an item



Custom

Unique branded experiences

The Hardware Reality

Haptic quality depends on hardware, software optimization, and battery settings.



Apple (iPhone 6+)

Taptic Engine



Industry leader since iPhone 6. Precise, nuanced, consistent haptics via dedicated Taptic Engine.



High-End Android

Samsung Galaxy, Google Pixel



Comparable experience on flagship devices. Advanced haptic actuators matching Apple quality.



Mid-Range Android

Budget & entry-level devices



May lack precision. Battery saving modes can degrade or disable haptics entirely.



Tip: Customization options include duration, intensity, and pulse cadence.

Which factor would MOST degrade haptic quality on a device?

A

Having a high screen brightness setting

B

Using a mid-range device with battery saving mode enabled ✓

C

Running many apps simultaneously in the background

D

Using the app in landscape orientation

Answer: B — Budget hardware lacks precision, and battery saving modes can disable or degrade haptic actuators entirely.

MODULE 3

Real-World Use Cases in Top Apps

Specific, observable examples to inspire your product strategy

Haptics in Consumer Apps You Know



ChatGPT

- ▶ Subtle taps while typing a prompt
- ▶ Gentle buzz when submitting a query
- ▶ Intense buzz/shake when AI finishes — pulls multitasking users back



Lyft

- ▶ Continuous haptic events when driver is arriving
- ▶ Requires user acknowledgment
- ▶ Ensures efficiency — happier drivers and customers



Spotify

- ▶ Subtle feedback while navigating menus
- ▶ Distinct, harder feedback when adding to playlist
- ▶ Prevents accidental actions through tactile confirmation



Engagement tip: Use screen recordings with on-screen buzz animations so viewers can visualize the tactile experience.

Everyday Enterprise Haptic Moments

Haptics turn ordinary enterprise workflows into confident, tactile confirmations.



Form Submission

A satisfying buzz confirms a timesheet or order was submitted successfully — no second-guessing.



Document Actions

A distinct tap when copying, saving, or sharing a document signals the action completed.



QR Code Capture

A quick vibration confirms a QR code URL was captured, speeding up mobile workflows.



Approval Workflows

Haptic confirmation when approving requests keeps managers moving without visual confirmation.



Error Alerts

A sharp, startling vibration on failed authentication or form errors prevents abandonment.



In-App Notifications

Haptic alerts for urgent messages bring users back into the app from other tasks.

MODULE 4

The Business Case & ROI for Enterprise

Translating technical features into measurable business outcomes

Three Core ROI Pillars of Haptics

01



Accessibility

Inclusive by design

- ▶ Physical feedback for users with visual or auditory impairments
- ▶ Confirms inputs were registered without needing to see or hear
- ▶ Example: Apple Music plays haptics to the beat for deaf users

02



Reduced Errors

Fewer abandoned workflows

- ▶ "Success" buzz confirms form submissions
- ▶ "Error" vibration prevents abandonment without knowing the result
- ▶ Critical for timesheets, account updates, and approvals

03



Engagement & Retention

Differentiation that sticks

- ▶ Tactile feedback makes interactions dynamic and satisfying
- ▶ Differentiates from basic desktop/web tools
- ▶ Encourages repeat use — the "feels right" factor

\$23.75B

Global Haptics Technology
Market Size by 2028

Source: Global Market Forecast, 2024

What This Means for Leaders



Haptics are becoming table stakes — competitors are already investing



Early adopters build stronger brand loyalty and user retention



Implementation is relatively simple compared to other complex features



Now is the time to prioritize haptics in your app roadmap

Scenario: Your field employees are failing to successfully submit mobile timecards. Which haptic strategy would best resolve this?

A

Add continuous haptic vibrations throughout the entire app experience

B

Implement a clear 'success' buzz on confirmed submission and a distinct 'error' vibration on failure ✓

C

Increase push notification frequency to remind users to submit

D

Use haptics only on the home screen to increase app opens

Answer: B — Targeted 'success' and 'error' haptics at the point of submission give employees immediate, unambiguous feedback without any visual check.

MODULE 5

Next Steps & Developer Enablement

Actionable steps to pass down to your product and engineering teams

Developer Resources & Next Steps

Good news: haptics are relatively easy to implement compared to other complex app features.



Apple Developer Haptics Guidelines

For iOS developers

Official Apple documentation for UIFeedbackGenerator, CoreHaptics, and Taptic Engine best practices.

→ developer.apple.com



Google Developer Haptics Guidelines

For Android developers

Google's guidelines for HapticFeedbackConstants and VibrationEffect APIs across Android device tiers.

→ developer.android.com



Median Docs / JavaScript Bridge

Cross-platform solution

Haptic effects designed to be consistent across iOS and Android, including Shake gesture support.

→ docs.median.co



A developer cheat sheet linking all three resources is available as a downloadable PDF handout for your engineering team.

Your App Roadmap Starts Here.

What you're empowered to do now:

- ✓ Brief your product team on the three haptic functions most relevant to your workflows
- ✓ Identify 2–3 high-friction moments in your app that could benefit from haptic confirmation
- ✓ Hand off the developer cheat sheet to your engineering team
- ✓ Prioritize haptics in your next sprint or quarterly roadmap