



# MOBILE & INTERNET OF THINGS



Codeminders

In an age when everyone's rushing to take advantage of the proliferation of mobile and Internet-Enabled devices on the market, you need a team adept enough to create mobile applications with a consistent user interface and experience. But creating for mobile and Internet-Enabled devices requires more than just creating a pretty user interface.

## MOBILE PLATFORMS



### EMBEDDED



### ROBOTICS



### DEVICES



## Overview

With a keen awareness of the intricacies of mobile hardware and software, sensors and algorithms, we create sophisticated code that goes beyond basic UI and UX. Since the 1990s, our senior programmers have developed code for mobile and Internet-Enabled devices and have programmed for the prototypes of the smart phones we know now. When it comes to mobile, we know our stuff, and we love to build.

## Process

**Evaluation:** From the start, we'll evaluate your needs and help recommend the best mobile platform to begin development on. We understand and can work with the capabilities of the platform, designing programs that make the most of the device's potential. With a deep grasp of different platform specifics, styles and guidelines, we're able to handle any request and can manage your mobile experience across devices for a clean, consistent, and seamless feel.

We also can advise you when it comes to decisions around Native vs. Mobile Web App (JavaScript based platforms/Mobile Web) and can handle the porting of existing applications as well. Got an app for iOS that needs to be ported to Android? We'll work within the confines of the target platform to create an app with the same functionality across platforms.

**Development:** We've worked and have experience within the most important development environments and know the constraints and limitations of each platform. From battery consumption to gesture UI, our team has the experience and know-how to handle every aspect of the software side of mobile and Internet-Enabled devices. We're not afraid to write low-level code, work with hardware, or create kernel drivers, taking every minute detail into consideration. Need mobile quality assurance? At Codeminders, our engineers are experienced in testing mobile apps and can ensure that your product will be ready for the market, well ahead of its launch date. When it comes time for optimization, Codeminders can do device-specific low-level optimization (for example using OpenGL or NEON).

**Publishing:** We can also handle the submission of your app to the app stores (iOS, Android, etc.) and every step of the registration process across multiple platforms. We leverage our own registration and certifications, should you not have them, which can speed the process along. We know our way around the submission process, can build for a faster approval, and have experience testing with independent authorities.

## Internet of Things (IoT)

Our knowledge goes far beyond standard mobile devices, such as tablets and smartphones. We've built code across a host of Internet-Enabled devices including Google Glass, Pebble watch, Fitbit, NEST Thermostat, 3M Smart Thermostat, AR.Drone, USB/Bluetooth Game Controllers, payment terminals, HID devices, Wireless Sensors, Wireless/USB Security and Web cameras, fitness equipment and touch sensors. We've worked with Arduino, XBee/Zigbee, AVR, embedded Linux, D-Link, and Cisco DD-WRT, and we have programmed a variety of sensors and actuators for robotics projects.

from ideas. to reality.

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## For *Entrepreneurs*

Maybe you're looking at complementing your web product, or maybe you're looking into a "mobile-first approach" for your application, either way, we can help. We'll let you know what's possible, suggest features, ask pertinent questions and define your goals so that we can build the best possible product from the ground up.

## For *Startups*

As a startup you may be unsure of how to capitalize on mobile or Internet-Enabled devices as an extension of your product. We'll work with your existing product and help you make the journey to mobile, making sure that the end product works flawlessly, and your customer experience is seamless across devices.

## For *Enterprises*

If your team has a new or legacy product that needs to evolve with a mobile or Internet-Enabled component, we've got you covered. We will help build an application that works within your existing parameters and accomplishes your goals. Most importantly, there's no impact on your team's capacity, we'll provide end-to-end development and support without putting unnecessary pressure on your internal team.

## Select Services

**Cross-Device Portability:** Got a product that needs to be supported across multiple devices? Every aspect of the experience, from the ergonomics and screen dimensions to the specific controls and navigation of the device, needs to be taken into consideration from the very beginning. Despite the fact that the IoT industry is pretty new, we already have an range of experience that we can couple with our history in the mobile space. We know what works and what doesn't, and we can advise on features that haven't even been considered.

**Ergonomics:** Writing complex code is a blend of art and science, and transitioning from a desktop to mobile UI can be a challenge, as it requires a redesign of the device's navigation flow. Everything from the type of navigation to the size of the buttons needs to be taken into consideration to allow the user to move freely and comfortably within the app.

**Mobile Sensing:** From accelerometers and barometers to GPS and proximity sensors, mobile and Internet-Enabled devices have enormous potential. We'll let you know how to take advantage of these, how to incorporate them into the application, and how to create an amazing user experience.

## Internet of Things Case Study: Football Helmets

Codeminders worked with a company looking to provide concussion monitoring sensors in football helmets. Triggered by an excessively hard hit, these sensors notify trainers immediately upon impact. These sensors were then paired with a simple puzzle, administered in real-time on the sidelines, to provide trainers with an accurate gauge of whether or not the player had received a concussion.

- ✓ We programmed the internal sensors and base stations to create an application that integrated the hardware and cloud archival components to provide trainers and parents with information regarding the player's safety.
- ✓ We provided a simple UI to ensure ease of use and seamless integration and created a single application that communicated coherently across multiple devices.

# Codeminders

If you're considering a Mobile or Internet-Enabled Device project, talk to us first. We'll walk you through a brainstorming session where we can scope your project and explain how Codeminders works. It's during this meeting that you'll get a feel for our process and transparency and understand how we can build within your budget. Learn more at [www.codeminders.com](http://www.codeminders.com)

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