



How to Create Augmented Reality Apps

More and more businesses and developers are looking into Augmented Reality (AR) applications and their potential uses. Wondering how to create AR apps yourself? This page can explain it all.

Augmented Reality – An Overview

Not sure exactly what AR is? Let's do a brief breakdown.

AR technology involves deploying virtual images over real-world objects or environments. Think of it as imposing Computer-generated imagery (CGI) over the real world, which distinguishes it from virtual reality (VR). VR requires building an environment around the user, while AR works to add useful imagery to the environment already around the user.

Most AR technology works when a camera produces footage of real-life objects, and the AR software then figures out how to place pre-generated CGI over the picture. The image is then transmitted to the user, where they can utilize it in some practical or meaningful way.

This technology has great potential across multiple industries and can be quite useful. But it also comes with several serious costs that act as barriers to entry for would-be AR developers.

What Are the Potential Benefits to Creating Your Own AR App?

If there are plenty of costs, why bother? In short, because AR technology offers untold potential benefits if you can design and develop a great AR app through strong development processes.

For example, AR technology can work in:

- E-commerce. Imagine an AR platform that helps customers locate and identify products in-store, then buy those products using e-commerce widgets or systems built into the AR app.
- Architecture and navigation. We already use digital maps every day. AR tech can lead the charge for indoor navigation, helping people to find stores, apartments, or even office buildings inside unfamiliar skyscrapers or building multiplexes.
- Games and entertainment. Imagine creating AR technology that produces multiple billions of dollars of gaming revenue. That's already happened – you know it as Pokemon Go.
- Travel and tourism. Both of these industries can benefit heavily from AR technology, including enriching travelers' unfamiliar places with multiple sources of valuable, informative, and contextualized information that can enhance the traveler's experience while generating additional revenue.
- Education. It's very easy to see how teachers and schools could benefit from web AR technology that allows them to reach students who can't be present in a classroom, particularly during situations like the COVID-19 pandemic.
- Emergency services. Governments and the medical industry may pay billions for AR technology that helps them save patient lives, either through helping personnel navigate to a patient or by providing other life-saving assistance through AR imagery or information.

All in all, there are lots of reasons to invest in AR technology and begin building an augmented reality app for your business. So let's take a look at how you can do just that.

Building Augmented Reality Apps – Things to Consider

While building an AR app is a worthwhile endeavor, it's also quite complex and there are multiple factors to consider before you begin development.

Types of AR Apps

For starters, it helps to know the types of AR apps already developed or in development. This can help you narrow down your own development goals. There are three major types:

- marker-based AR apps
- location-based AR apps
- AR apps based on visual odometry

Marker-based AR apps are the easiest to understand. These basic AR applications are widgets and rely on markers or trigger spots like QR codes, images, or cards. You'll develop these apps primarily for markets like e-commerce, shopping, and so on.

Location-based AR apps rely on data harvested from GPS services in particular. Then they use sensors that collect location data to paint persistent AR images over the user's local environment. Pokemon Go is one such example of an app that uses location-based services.

Lastly, AR apps based on visual odometry rely on much more complex algorithms and require data received from several sensors at once. With these apps, the camera can identify the precise location of a target or user.

These apps are the most difficult to create but offer the most raw or practical value for more serious concerns like the industrial, medical or educational industries.

Augmented Reality SDK Choice

One of the biggest and most critical choices you'll face is the SDK or software development kit you'll use to build an augmented reality app. An SDK is essentially a collection of tools or software that can help you develop your app without having to code every bit of it from scratch.

Some SDKs are better than others. ARwayKit is one great example of a top-tier SDK that offers phenomenal user value with innovative convenience included from the start. For example, it's a mobile AR SDK, so you can more easily integrate AR content to local or physical locations.

Regardless, you should always prioritize an affordable and worthwhile SDK if possible.

Design and Features

You'll need to consider what design the app will have and what features it'll prioritize. For instance, is the app going to be exceptionally user-friendly, or will it be more complex and only usable by veterans of the target industry?

Is the app going to use animated images? 3-D graphic models? Something else? Getting the initial features and design right the first time will prevent you from having to go back to the proverbial drawing board later down the road.

Market Analysis

Of course, you'll also want to perform heavy market analyses to make sure you develop an app that has an audience or consumer base right out of the gate. This means some of your ideas will be more worthwhile than others – it's usually only a good idea to prioritize design ideas or features that are marketable or worthwhile to your target audience.

Software Architecture

You'll need to build the software architecture for your AR application. Note that this could take up to 40 hours or even longer. The better the SDK kit you have, and the better your software architecture planning is beforehand, the faster this part of the process will go.

Project Management

Your project manager needs to be skilled and exceptional at getting the other team members to do what is necessary. Good project management will ensure that your benchmarks or milestones are met on time and that you don't waste a lot of time going back to fix mistakes or redo certain parts of the planning process.

Development Time

Then you have to factor in total development time. This can vary dramatically based on the size and complexity of your AR application. But it's not uncommon for AR app development to take up to several hundred hours in total, even for basic functionality and features.

Want to Reduce Costs? The Best Augmented Reality SDK Can Help

Developing a top-tier augmented reality app can be quite costly. That's why it's important to make sure you prioritize effectiveness and affordability in equal measure.

ARwayKit is an SDK that represents both of these values. With competitive prices based on usage, allowing any size development team to integrate the ARwayKit prior to acquiring end-users, and a collection of features no other SDK can match, especially a content management system (CMS) along with the no-code platform, simplifying the set-up process, ARwayKit is the best bang for your buck in more ways than one. Check it out for yourself and sign up so you can begin developing your AR app today.