



ARCore for Stream: A Case Study

Stream connects customers with professionals to solve household maintenance issues in real-time, using ARCore.

Company

Stream is a remote, on-demand, expertise solution for home services. Users connect with live professionals through an app with a video feed. The professional can see the user's maintenance issue through the mobile phone's camera, and can walk the user through the maintenance tasks using laser pointers, annotations and sticky arrows.

Challenges

Video tutorials exist on how to fix home appliances, but it can be difficult for users to translate what they see in a video to what is in front of them in the real world. Also bringing professionals onsite to fix maintenance problems can be time consuming and costly. Up to 75% of home automation companies charge money for an initial estimate, before any work has been done. Stream's solution streamlines many maintenance tasks and solves for all of these challenges at once.

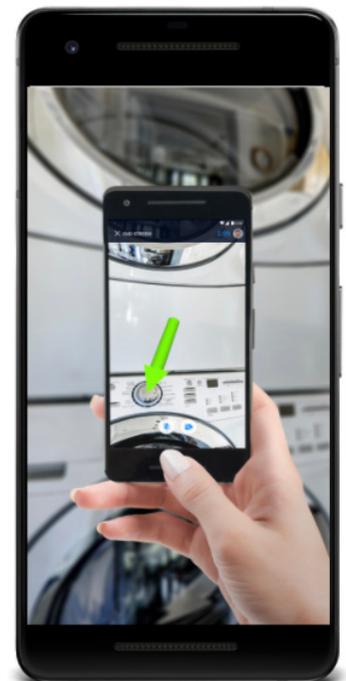
Solution

By creating a remote, AR-enabled, audio/video-based offering, Stream users can connect in real-time to a professional who can leverage the augmented reality features of the phone to provide guidance and instruction, take measurements, and even project potential solutions into the space. Using AR for collaboration and synchronization, Stream initially developed custom code to allow their professionals to control a 2D laser pointer on the user's screen in 2016, but they foresaw the growth of AR and had a goal of moving into more 3D experiences as platform technologies progressed. Over the past 6 months, the Stream team has built an entire ARCore experience in Java and OpenGL, as well as in Unity.

The Stream app works across two devices with the customer and professional. The customer uses one-way video and two-way audio. The customer's device does all the work using the accelerometer through ARCore. In addition, the professional can collect the model/serial number, via OCR (optical character recognition), as well as take measurements and mark up photos with arrows and circles that can be saved and sent to the user. The app uses machine learning to identify parts, components and situations. The tech can annotate the AR scene to help talk the user through issues and gather info they may need if a house call is ultimately required.



On demand access to expertise as a whole and on demand economy is the future. We're most excited about providing AR as a unique app experience. Opportunity to bring this service to market is exciting and scary.



Learn more

Find out how to get started with ARCore at:

developers.google.com/ar

Check our Stream app [here](#)