360 Video-based Touring Platform for HKUST Campus and Hong Kong
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Introduction
This is a project focus on developing a 360 system with a software platform and support it by a hardware accessory. We developed a touring platform (#360) which is dedicated to 360 content on both iOS and Android OS. Assisted with a mapping system, users can view 360 photos and videos of different locations while uploading and sharing their own 360 contents.

In addition, we also designed and created an original hardware product — PortaBoard, which maximized the all-rounded experience as a cardboard viewer.

Project Objective
- Increase Popularity of 360 Technology
- Develop a Non-Existing Touring Platform which is Dedicated to 360 Content
- Design and Create an Upgrade Version of Google Cardboard with Affordable Price
- Contribute to the 360 Community by Open-Sourcing our Work

System Diagram

Implementation and Testing

Result
We successfully created a well-developed 360 platform on both iOS and Android OS, which are supported by a database using Firebase service in backend. An original designed 360 content viewer — PortaBoard is also created for maximum viewing experience.

#360 is available on App Store now. All relevant source code related to the App has also been uploaded to GitHub as a reference for all the developers. We have also put the 3D design draft of the PortaBoard onto the internet for any users to use as a reference.

Conclusion
We developed our App #360 on two of the most popular operation system, enabling users to experience 360 photos and videos, upload and download 360 contents, look for tourist spots on our in-App map and share it with other users.

Meanwhile, we studied Google Cardboard, figured out its downside and came out with our original design base on it. PortaBoard, our design allows users to truly enjoy the unique experience 360 content has to offer.

We achieved our academic objective of building a system combing hardware and software component. At the same time, we also helped boost 360 technology’s popularity in the public, by holding two events in HKUST, giving out chances to students with different background to understand and have a taste of the technology using our platform.