Project Name: RAUK Chalk

Team number 17
Team members: Matthew Eagle, Zach Harris, Doug Newman, Xianye Zhou, William Graham

Synopsis
Create an easy to use KU campus navigation system that overlays directions onto live video of the real world environment.

Project Description
The goal is to create a better navigation system using augmented reality. For those unfamiliar with an area, use RAUK Chalk instead of straining to find road signs to follow a map route. Typical gps navigation systems still force the user to read an actual map. They just highlight a specific road to walk along. RAUK Chalk's goal is to improve the user experience by eliminating the need for maps entirely. Instead, simply point your phone camera forward and follow the drawn path ahead. It handles knowing which roads are which to make your life easier. In addition, we might be able to use data from the user's camera to even more accurately pinpoint their location versus solely gps. The targeted scope of the project is specifically for navigation around the University of Kansas campus. The audience most impacted by the creation of this software is new KU students with no knowledge of the layout of the campus. After the formation of a KU navigation database, the project could fairly easily be extended for use anywhere.

Project Milestones/Completion Dates
First semester:
- Project Scope Defined / October 11
- Technological Survey and Requirements Decided / October 25
- Initial UI design / November 1
- Programming Interfaces and Technologies Specified / November 8
- Project Management and Responsibilities Delegated / November 29

Second semester:
- Member-Specific Functionalities Implemented (TBD) / March 1
- Complete beta version, start testing / March 15
- Finish testing and deploy to store / May 1

Budget

No anticipated requirements at this time.

We will develop in Unity (personal version) and deploy to the google play store.

No additional augmented reality equipment should be required. We will use our phone cameras to capture the video feed.

Work Plan

- Navigation Algorithm
  - Doug Newman
- Virtual Space Building
  - Matthew Eagle
- Camera Live Stream Overlay Casting
  - Zach Harris
- Device Position Determine Algorithm
  - Xianye Zhou
  - William Graham
- UI Design
  - Doug Newman