

Augmented Reality (AR) Navigation System for Commercial Spaces

Software Projects - Group 14

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March 2019

Motivation

- ▶ Lack of maps and signage in museums.
- ▶ Old technology currently in use, e.g. portable audio guides
- ▶ Various applications to other scenarios, e.g. supermarkets or libraries.

- ▶ Display navigational routes in real-time.
- ▶ Calculate the shortest route to the user specified location.
- ▶ Use AR to enhance user navigation routing.

Design

- ▶ User flow diagrams
- ▶ Android Prototyping
- ▶ 2

Development Process & Testing

- ▶ Used Agile/Scrum instead of Waterfall
- ▶ 3 Sprints Conducted
- ▶ TDD approach
 - ▶ Unit
 - ▶ Integration
 - ▶ Regression
 - ▶ Performance & Stress
 - ▶ User Acceptance (UAT)

Outcomes

Sprints Conducted

- ▶ Arduino hardware construction and Bluetooth
- ▶ Navigation using A* path-finding algorithm
- ▶ AR: Rendering objects on screen

Evaluation

- ▶ High technical standard in the back-end
- ▶ Very "agile" in moving things between sprints to accommodate changes
- ▶ Good feedback from industry professionals and users
- ▶ Executed plans as of our proposal

Questions?