**Team Name:** Under Construction

**Product Name:** vMemo

**Team Members**
- Michael Radbel (Team Lead)  
  mradbel@gmail.com
- Maneesh Karipineni  
  mkaripineni@umail.ucsb.edu
- Yun Suk Chang  
  yunsukchang@gmail.com
- Matthew Ruth (Scribe)  
  mruth@umail.ucsb.edu
- Ilyne Han  
  ilynehan@gmail.com

**Project Description**

**Our Vision**
Our team will develop vMemo: a software product that manages construction site supervision – providing location tracking and graphical augmentation over on-site structures.

**What problem is the project solving?**
Currently, there are no dedicated services to assist contractors with:
- On-site walkthroughs
- Easily pointing out and handling construction flaws
- Facilitating subcontractors in performing location-specific tasks

**Why is this problem important?**
The vMemo will help make performing daily on-site checkups more efficient through:
- Providing three-dimensional renderings from walkthroughs
- Allowing for annotations to be made on real world objects, handled in an organized manner
- Allowing for desired 3D objects to be superimposed within three-dimensional space through the use of augmented reality

**How is this problem solved today?**
- On-site evaluations are performed by taking large sets of photos on a daily basis
- Notes regarding all tasks to perform on a job site, also known as “punch-items”, are tagged on two-dimensional schematics
- Contractors use Procore software in order to make visual edits on top of digital two-dimensional schematics

**Project Outcome/Define Initial Project Milestones**

**Specification**
- Meet more with mentor to discuss specs/project details
- Decide between Unity SDK and Java API for application programming
Design
- Visually represent the system
- Learn about/tryout the technologies behind the Project Tango SDK
- Determine the possibilities for interacting with Procore’s code base

Prototyping
- Pair in teams of two to make sample apps to get familiar with Project Tango
- Create and assign tasks on Trello

Implementation
- Use the camera’s field of view and infrared 3D sensors to measure distance between two 3D points.
- Use Project Tango’s position tracking, motion tracking, and depth detection to put 3D annotations onto real world objects.
- Build a proper UI

**How do you plan to articulate and design a solution?**

**Implementation platform and technologies**
1. Unity Game Engine with Project Tango Unity SDK
2. Android SDK
3. Files hosted on AWS S3

**Overview the process model you will employ to achieve the milestones**
- Daily scrum meetings
- Google Drive for document storage
- Trello for project management
- Slack for team communication
- Github for repository and version control
- Establish coding standards
- Agile workflow process