

Software Engineering Project Weekly Report

3D-KORN

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1 Tasks completed

- Created excel file for task allocation and track progress regularly (<https://goo.gl/WDHEjf>).
 - List of activities being conducted.
 - Human resources allocated for each task.
 - Deadlines establishment for task tracking.
- Completed Gantt chart and created set of milestones (https://github.com/umaatgithub/3D-KORN/blob/master/Project-Management/3D-KORN_GanttChart%26MilestoneOutput.xlsx).
- Knowledge transfer: KT session on coding standards was conducted.
- Issue resolved: Successfully interfaced with Kinect V2. Consequently, the build configuration for the project will switch to PCL 1.8 (source: (<http://unanancyowen.com/>) with MSCV 2015 and Qt 5.7.
- Acquisition of two working data sets of 3D pointclouds. Storage and sharing for POC tests in GitHub repository.
 - Acquisition of pointclouds from the camera already PCL data-type.
- Successful interfaced with Arduino through QT serial port library.

2 Work in Progress

- Preliminary versions of use-case and class diagrams shared in Github (available in 'Design' folder).
- Advances in POC tests for 3D pointcloud cropping, segmentation and registration.
- Scanner design. Horizontal, inter-team design agreement.
 - BIM (bill of materials) waiting for decision.

3 Tasks for this break

For this special situation in which members of the group will be working remotely in the project, we suggest the following goals aiming to prepare the coding stage of the project:

- Finish the ongoing POC.
- Start implementing classes from the finished POC.
- Finally, start building the basic structures of the projects code.

For achieving these points, we suggest a team distribution and task allocation as follows:

- Project Initialization

Tasks:

- Lay the basis for the projects repository and software architecture.
- Start GUI proofs of concept with dummy implementation.

Members: Umamaheswaran, Benjamin, Nayeem.

- Scanning

Tasks:

- Implement the class for scanner.
- 3D registration POC.
- Research on Arduino, Qt and motors controlling for turntable.

Members: Albert, Ezequiel, Daniel, Pamir

- Operations With Pointclouds

Tasks:

- Complete ongoing POC in segmentation and plane cropping.
- Implement class for pointcloud segmentation.

Members: Luca, Roberto, Savinien.

- Training Group

Tasks:

- Tune up specific programming skills for tasks in progress. Horizontal help and knowledge transfer between members of the different teams.

Members: Ezequiel, Nayeem, Meng, Roberto