

Software Engineering Project Weekly Report

3D-KORN

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1 Tasks completed

- Creation of an Excel file for task allocation and working progress (<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.
- 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 MSVC 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

- Initial, preliminary versions of use-case and class diagrams shared in Github.
- 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 step 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 this, 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 POC with dummy implementation.

Members: Umamaheswaran, Benjamin, Nayeem.

- Scanning

Tasks:

- Wrapping scanner in 3DKorn_ ScannerDevice class.
- 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 3DKorn_ SegmentPointcloud,

Members: Luca, Roberto, Savinien.

- Training Group

Tasks:

- Continue practice in programming and Qt to consolidate knowledge. With that in mind we suggest reviewing and understanding with the help of other team members some of the Software Engineering labs.

Members: Nayeem, Meng