Software Engineering Project Weekly Report

# 3D-KORN

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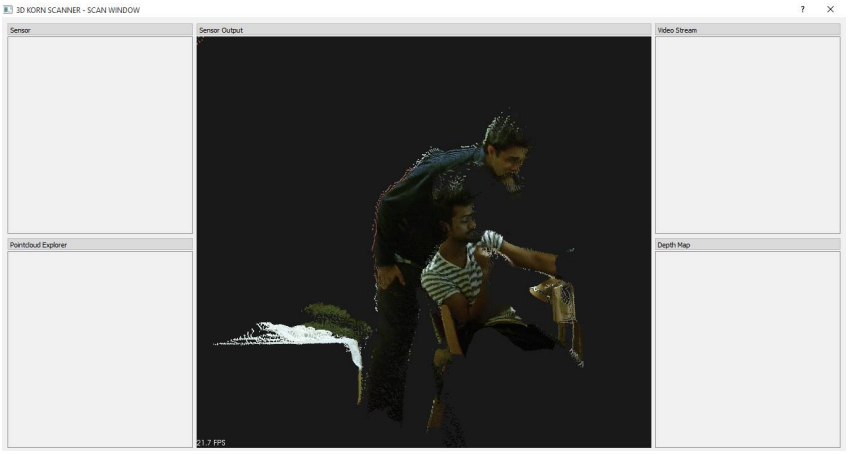
# 1 Tasks Completed

- **Point Cloud Operations Class**
  - *Research and documentation about watertightness*
  - *Conversion from vtk format to stl*
- **GUI Class**
  - *Research, documentation and test for menubar, toolbar and statusbar.*
  - *Added Kinect stream to the GUI*
  - *Improved the scanning interface*




- **Scan Registration Class**
  - *Added manual prealignment of scans based on center of turntable rotation and difference of rotation between each scan, which significantly improves the performance of the PCL registration algorithms.*

- **Kinect Controller Class**
  - *Fixed the acquisition of null points*
  - *Defined a cropBox for the acquisition of points*
  - *Completed the TDK_KinectV2Controller class*

## 2 Main Goals For Next Week

- **Point Cloud Operations Class**
  - *Complete the implementation of watertightness*
  - *Save and Load Class*
- **GUI Class**
  - *Integration of registration and meshing classes to the GUI*
  - *Improvement of the GUI in term of Friendly User Abilities*
- **Scan Registration Class**
  - *Research and Documentation for improvements*
  - *Complete the Scan registration*
- **Kinect Controller Class**
  - *Implement controller functions for R200*
- **Knowledge transfer session**

  A knowledge transfer session will be organized this week, where each member will share the acquired knowledge, the implemented features and the work in progress with the rest of the team.
- **Platform**

  A reunion with the different groups for the turntable issue has been organized.
  The main goal is now to evaluate the feasibility of the proposed design. 4 axes of development have been raised:
  - *The structure of the turntable itself*
  - *The step motor and shield for the Arduino interface*
  - *The traction belt*
  - *The motor encoder*

## 3 Important links

- Task allocation and progress (`https://goo.gl/WDHEjf`)
- Github repository (`https://github.com/umaatgithub/3D-KORN`)