

Lab Course Kinect Programming for Computer Vision

Assignment 4: Point Cloud Visualization

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1. Extend your skeleton Kinect application with a 3D point cloud visualization of the depth data. For this purpose, you will need to project each depth image pixel back to 3D using the intrinsic parameters of the IR camera. For visualization, you can simply draw OpenGL Points using `glPoint`.
2. Extend your 3D point cloud visualization such that each 3D point is assigned the corresponding color from the RGB image. For this purpose, you will need to project the 3D points into the RGB image using the intrinsic parameters of the RGB camera and the relative transformation between the IR and RGB cameras.

In case you did not succeed in performing the stereo calibration from assignment 3, please contact your fellow students that might have succeeded, or contact us to obtain the intrinsic and extrinsic parameters you need for this assignment.