

3D Reconstruction of static scenes using Kinect

Remo Meyer & Jan Rüegg



Progress

- ROS Setup
- Reading Kinect Data
- 6-Step ICP Pipeline
- Stepwise visualization with rviz

ICP Pipeline

- Selection (random)
- *Matching (brute force nearest point)*
 - will be Projection
- Rejection (threshold)
- Minimization (point-to-plane, SVD)
 - Normals estimation with correlation Matrix, Eigenvectors

Remaining Work

- More than 2 clouds
- Speed
- Matching Algorithm (projection)
- Use of Colors
- Mesh Creation

Demo

