Julius-Maximilians-
UNIVERSITÄT WÜRZBURG

ZENTRUM
FÜR
TELEMATIK E.V.

Informatik VII:
Robotik und
Telematik

Bachelor Thesis or Internship

Registration of multiple Laser Scanners on a Robot

Description

In order to utilize multiple laser scanners on an industrial robot, the relative position between each scanner has to be precisely known. This way, the data of all scanners can be fused and used simultaneously to offer up to a 360° visibility around the robot. Due to the tolerances of the manufacturing process, the use of precalculated mounting poses for the laser scanners as a calibration is not possible, therefore an automated solution has to be developed, to make the calibration of the sensors possible on a per-robot basis. This has to take as well into account, inclinations on the laser scanner planes and height differences.

Previous Knowledge Required

C++, ROS, OpenCV, Basics 3D Point Cloud Processing

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