

Weekly Report

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Topic: Robot Guided Surface Scanning with Ultrasound

Date: 13|06|2021

Tasks Done:

- CQ_ROB_Master_export:
 - I have read all the code it's a bit fuzzy in my head as comments are in German. But still, I get it just functions to calculate initial position pose to move. Checking if constraints are satisfied.
 - There is also some code to move the robot from one pose to another
- CameraUltrasoundCalibration:
 - I have read all the code I pretty much understand what every file is doing. It reads the images and use 1st row 3 points to compute the calibration.
 - Some part of the code is a little confusing as it is take up from some research paper and also I have not seen the robot and the whole set up may be that's the reason
- RobotUltrasoundCalibration:
 - This almost same as the camera ultrasound calibration. Just uses all 12 points of the phantom.
 - There is also Hand in eye calibration. I think I understood whats going on the code.

Questions:

- Should I understand what each and every line is doing?
- In RobotUltrasoundCalibration – MainUltrasound Caliberation where is says “without” and “without3”. Dint really understand what is it.
- Rot3dfit is taken from some research paper I tried to find it but no luck. I think I understand what is being calculated but a little of theory will help.
- CQ_ROB_Master_export: In this part I think some files are missing
- Should I dig more into the code or start looking at different papers and try to implement them.
- I am kind of confused what I should next.