

For clearer view, visit: [https://nusu-my.sharepoint.com/personal/e0325858\\_u\\_nus\\_edu/layouts/OneNote.aspx?id=%2Fpersonal%2Fe0325858\\_u\\_nus\\_edu%2FDocuments%2FChenghui%20%40%20National%20University%20of%20Singapore&wd=target%28ESP3902.one%7CAB08BA32-539B-4EA6-AFAB-73257FE0B650%2F1%7C1D19D5A9-6FC7-44D9-A3BB-F6EEED40FB13%2F%29onenote:https://nusu-my.sharepoint.com/personal/e0325858\\_u\\_nus\\_edu/Documents/Chenghui%20%40%20National%20University%20of%20Singapore/ESP3902.one#1&section-id={AB08BA32-539B-4EA6-AFAB-73257FE0B650}&page-id={1D19D5A9-6FC7-44D9-A3BB-F6EEED40FB13}&end](https://nusu-my.sharepoint.com/personal/e0325858_u_nus_edu/layouts/OneNote.aspx?id=%2Fpersonal%2Fe0325858_u_nus_edu%2FDocuments%2FChenghui%20%40%20National%20University%20of%20Singapore&wd=target%28ESP3902.one%7CAB08BA32-539B-4EA6-AFAB-73257FE0B650%2F1%7C1D19D5A9-6FC7-44D9-A3BB-F6EEED40FB13%2F%29onenote:https://nusu-my.sharepoint.com/personal/e0325858_u_nus_edu/Documents/Chenghui%20%40%20National%20University%20of%20Singapore/ESP3902.one#1&section-id={AB08BA32-539B-4EA6-AFAB-73257FE0B650}&page-id={1D19D5A9-6FC7-44D9-A3BB-F6EEED40FB13}&end)

Under Logbook -> 1 & 1.1

Thursday, 13 August 2020 3:58 PM

Short term plan: 3D scan a room  
Long term plan: Integrate with IOT

Main sensor: ~~Lidar Lite~~ -> Intel realsense? ✓

Lidar lite scan point by point

Continuous 3D scanning with much more functions than a the Lidar ~~lite~~

Lidar lite => can find in SG  
RealSense => have to ship from overseas. Need the hardware to code with.

Code would be in python. They have a wrapper library and can pip install the RealSense library. Example codes in the URL.txt file.

Monday, 17 August 2020 5:50 PM

Skeleton tracking?  
Hand tracking?

Sign language recognition  
<https://community.intel.com/t5/Software-Archive/INTEL-REALSENSE-3D-CAMERA-FOR-SIGN-LANGUAGE-FINGER-MOTION/id-p-996500>

Gesture controlled robo  
[Controlling an Arduino Robot with Intel RealSense](#)

Subidea:  
Skeleton tracking for physiotherapy?  
- Maybe too hard due to the way ppl can face during exercising.  
- Would need the SDK for 75USD

Intel RealSense camera controls a Thymio II robot with gestures (Deutsches Museum project)

- 1 hand

- 2 hand steering

PROBLEM to settle:  
- What SDK to use with RealSense SDK for hand gesture recognition.  
1) <https://www.intelrealsense.com/software-for-intel-realsense/#gesture-recognition>  
2) <https://nuitrack.com/>

\*\*the Teleidoscope one like nothing to dwl? Maybe just stick to Gestools and Nuitrack

-And how to convert that data to ~~arduino~~ raspberry pi4

Only this board has USB 3.0 ports that is better to link with RealSense.