

# Lab Report 12

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**Summary:** Hours spent: 10

Monday: (2 hrs): I have found a few github repositories aimed at orb\_slam2 and ros.

The only difficulty is there is no mention of webots, nor is there use of “colcon build” which I have familiarized myself with. They use “catkin build” and “cmake”. I am going to read to see if adding either of those to my ros2 will break what I already have working.

[https://github.com/appliedAI-Initiative/orb\\_slam\\_2\\_ros/tree/ros2](https://github.com/appliedAI-Initiative/orb_slam_2_ros/tree/ros2)

[https://github.com/alsora/ros2-ORB\\_SLAM2](https://github.com/alsora/ros2-ORB_SLAM2)

[https://openvslam-community.readthedocs.io/\\_/downloads/en/latest/pdf/](https://openvslam-community.readthedocs.io/_/downloads/en/latest/pdf/)

Tuesday: (1.5 hrs): I started today doing more in depth research about which way i could go. The “alsora” one uses ros2 foxy and is the only one to do so. Github is still very new and I am worried of damaging my PC so I am carefully and hesitantly looking at everything.

Wednesday: (4 hrs): I had a discussion with Justin about which repository he thinks I should attempt and agreed. Neither of us know what “Pangolin” is but he suggested that I research into it. The repository is relatively short with it’s instructions but links to 6 other repositories that I will need to view. I will first check out this “dockerfile” thing from the repository as that seems most efficient. [https://github.com/alsora/ros2-ORB\\_SLAM2](https://github.com/alsora/ros2-ORB_SLAM2)  
It appears the dockerfile did not work for me. I have found no solutions on the internet so I will do the full install in the coming days. Downloaded Pangolin after reading a little about it.

<https://github.com/stevenlovegrove/Pangolin>

Thursday: (1 hr)

Doing openCV linux install at

[https://docs.opencv.org/3.0-beta/doc/tutorials/introduction/linux\\_install/linux\\_install.html](https://docs.opencv.org/3.0-beta/doc/tutorials/introduction/linux_install/linux_install.html)

Friday: (1.5hr) Created some documentation of precisely what I have opted to download for each step of everything so far. Had some rough internet so the downloading took much longer than expected. Finished OpenCV, beginning the ORB\_SLAM2 before I go into work.

### **Next Week:**

Once ORB\_SLAM2 is complete I have 2 more repositories to do. I will continue to document what I chose to do and not. Before the final presentation I should update my personal robot too once the other two finish the while and image msg tasks they chose to attempt.