Lab Report 14

Trevor Fournier
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Summary: Hours spent: 15 hours

Sunday: (2 hrs): Worked on the past project some more. Will only end up pushing some minor changes as the changes worked on will not produce noticeable results. I attempted to fix the world of the multiple cylinders such that the colors are readable instead of every slice being considered yellow. This would take more extensive time to essentially read each cylinder depending on the way the colors are stacked and hardcode their locations into the robot. I simply have more important fish to fry(ORB_SLAM2).

Monday: (3 hrs): I checked with Noah and sent him some useful info to quickly catch up so I can have help. I informed Justin about the error through teams after my efforts. I redownloaded the entire opencv newest content which takes up to 40 minutes, following the directions to my best effort here: No luck though.

https://docs.opencv.org/3.0-beta/doc/tutorials/introduction/linux_install/linux_install.html
I found the code snippet that is giving me trouble.
find_package(OpenCV 3.0 QUIET) and find_package(OpenCV 2.4.3 QUIET) are not locating my opencv location, I tried multiple changes but I am having no luck. I have
-   Inserted the path into find_package like in the linked website states
-   Changed dir name of "opencv" to "OpenCV 3.0"
-   Changed the inserted item numbers to 4.5.2 and 4.0 as that is the curr version.

https://stackoverflow.com/questions/43606403/how-to-choose-which-opencv-to-use-in-cmakelists-txt-when-i-have-two-opencv-same
https://stackoverflow.com/questions/33897780/cmake-and-opencv-3-0

Tuesday:(2 hrs): I fixed that error after scouring the internet. Fix is to go to /ORB_SLAM2/Thirdparty/DBoW2/CMakeLists.txt

and

 /ORB_SLAM2/CMakeLists.txt

then just change the find_package(OpenCV 3.0 QUIET) to

find_package(OpenCV 4.5.2 EXACT PATHS <path to OpenCV>)

My path for example was   /workstuff/opencv

I have a new error now but at least it isn't that one.

The error proved too difficult for me to solve. But in my search there is a fork repository that solves the errors experienced. The only switch necessary is instead of doing the command: git clone https://github.com/raulmur/ORB_SLAM2.git ORB_SLAM2

Instead do: git clone https://github.com/Windfisch/ORB_SLAM2.git ORB_SLAM2

Do be warned there are many warnings of depreciated values.

Now doing the vision_opencv at

https://github.com/ros-perception/vision_opencv/tree/ros2/cv_bridge

Got message filters.. Don't know what to do other than clone.

https://github.com/ros2/message_filters

Got errors building the main repo. https://github.com/alsora/ros2-ORB_SLAM2

Wednesday: (3 hrs): I experienced an error while building the repo that should be node wrapping ORB_SLAM2 with ROS2. I did not find any help with this on the internet but after many tries, I simply just deleted the directory we are told to create, and redid that. It fixed the specific error of not being able to find ORB_SLAM2. Currently I have the error that looks like:

"Could not find a package configuration file provided by "cv_bridge" with any of the following names:

cv_bridgeConfig.cmake

Cv_bridge-config.cmake"

I cannot find any of these files in either of the cv_bridge locations on github. There is a conf.py but that is it.

Thursday: (2 hrs): Deleted and restarted everything so that I can create a video leading to where I am now.

Friday: (3 hrs): Video editing is very long, so is downloading this. Wrote documentation and put everything together.

Ending:

I was not able to finish the task due to that final error, as it is documented in the video. I do not know if the others were successful either. Regardless I have made a video that will give anyone the tools to be where I left off as long as ROS2 is already downloaded and working.