Option 1: MATLAB

MATLAB Install MATLAB and Spatial Math Toolbox, Robotics Toolbox (RTB), and the Machine Vision Toolbox (MVTB). Installation instruction can be found on Appendix A of the textbook or:

https://petercorke.com/toolboxes/

a), After installation of those toolboxes, run the demo using the following command and submit a screenshot

>> rtbdemo

b), Read and display the "church.jpg" file. The code you need can be found on Section 12.1.1 from the textbook.

Option 2: OpenCV

Use your prefer programming language and environment that is compatible with OpenCV:

https://opencv.org/

The example I use here is Visual Studio Code with Python. You can choose to use the same setup or use whatever you are comfortable with, as long as you can get the OpenCV running. I recommend using either C++ or Python.

There are a lot of tutorials online you can find to set up OpenCV, for example, if you use Visual Studio Code with Python, you can follow one of these:

https://medium.com/mlearning-ai/opencv-python-devemplement-environment-with-vs-code-afaf148843e3

https://www.youtube.com/watch?v=02RC4yYJuAM&ab_channel=StudySession

a), after you successfully setup OpenCV, read and display the "church.jpg". The following link has the code you need for most of the assignments this semester:

https://www.geeksforgeeks.org/opencv-python-tutorial/

Note: For homework assignments this semester, you can use either MATLAB or OpenCV.