# Engine or Language to use

After thorough research the program is going to be written in C++ because Unity only offers two official computer vision libraries that could aid the project the first was VisionLib. VisionLib is mostly used for Augmented Reality and helps more with model tracking, in layman terms you feed it a 3D model and you can use it with AR glasses or similar, to assist tracking. The second is OpenCV, however using it through Unity meant they must put a price tag upon it, of $65. Furthermore, I looked into using Unreal Engine, unfortunately, my research came up short and could not find any libraries to use with unreal except using OpenCV and using that within my code. C# also has a library which uses OpenCV, this is called EmguCV. This tool is cross platform, and wraps OpenCV in a .NET, allowing any .NET applications that are compatible to use for example C#, VB, VC++ and any IDE that can compile it. This however, is time consuming for the project having to learn a new library and how to use a .NET wrap version of OpenCV. In the end, it came down to using OpenCV but, this can be used within three languages, Java, Python and C++. Unfortunately, my knowledge in Java and Python is little or next to none therefore, I have decided to write my program in CMD in C++.

# Reference List

VisionLib, 2019. Augmented Reality Tracking Library for industries [viewed 19/01/2019]. Available at: <https://visionlib.com/>

SOD, 2019. An Embedded Computer Vision & Machine Learning Library [viewed 19/01/2019]. Available at: <https://sod.pixlab.io/>

OpenCV, 2019. Open Source Computer Vision Library [viewed 19/01/2019]. Available at: <https://opencv.org/>

EmguCV, 2019 [viewed 19/01/2019]. Available at:<http://www.emgu.com/wiki/index.php/Main_Page>