**Create Your Own Computer Program!**

**Project Overview Sheet**

Computer programming is the process of employing a programing language, such as C#, Python, and HTML, to address or solve a real-world problem (or to create a fun game!) Your task is to apply what you’re learning about the C# coding language and Unity platform to develop a computer program that improves, or is a spin-off of, existing augmented reality physiology demos.

**Requirements**

* Note: All programs can be downloaded onto your personal computers free of charge.
* Download or access Microsoft Visual Studio 2017 or later (<https://visualstudio.microsoft.com/free-developer-offers/>). Make sure to install the C# plug in as well.
  + Visual Studio is where you will build your code in C#.
* Install the .Net framework (<https://dotnet.microsoft.com/download/dotnet-framework/net48>).
  + .Net is what translates your code into Windows so that it can be executed.
* Download or access Unity v. 2018.2.9 or later (<https://store.unity.com/>).
  + Unity is the platform that allows us to build our demos. It has the ability to create screens and a variety of other useful features.
* Access the AR Physiology demos and upload the one you would like to start with into Unity.
  + AR Mirror Muscle Demo Source Code - <https://github.com/MASILab/AR_Mirror_Muscle_Demo_Clean>
  + AR Mirror Bone Demo Source Code -<https://github.com/MASILab/AR_Mirror_Bone_Demo_Clean>
* Orbbec Astra Pro Camera (if you would like to purchase your own camera) - <https://orbbec3d.com/product-astra-pro/>
* Orbbec Camera Driver - <https://orbbec3d.com/develop/>

**Guidelines**

* Every line of code you add or modify **must** be clearly annotated such that a novice could access your code and clearly understand how each line functions.
* Like a lab notebook, each version of the program must be saved as a separate file.