

Create Your Own Computer Program! Project Overview Sheet

Computer programming is the process of employing a programming 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.