

Computer Science 599.82

Assignment #1

[John Aycock](#)

Due: 9am Thursday, February 11, 2021

Purpose

To become familiar with 6502 assembly; to learn about the VIC-20 platform; to advance your term project.

Important notes

- Work in your term project groups.
- Sources of information are the same as for the term project.
- If you have any questions about what you can and can't safely do, feel free to [email me](#).

Specification

Create *at least* ten test programs, each of which explores some different feature of the VIC-20. There should be (at least) ten distinct programs, not one program that does ten things. I'll show you some examples of my own test programs in class.

In keeping with the platformer theme of the term project, there are two mandatory test programs:

- Regular non-jumping player movement (e.g., walking or running)
- Jumping

I suggest you build up to these gradually with simpler test programs of your own choosing. Your final player graphics needn't be in place for the mandatory programs yet, but it should be possible to get a feel for your movement and jumping mechanisms. If your game requires other movement (e.g., climbing), then that's a good idea for a test program too.

These test programs will start you off working with the tools and 6502 assembly language, and you should end up with the building blocks of your game when you're done, more or less. Many retrogame programmers have said that creating an interesting effect had become the core around which their games were built, so you may find some design inspiration here too. Each should have some distinct visual/aural output to indicate that it's working.

All of the test programs should be written in 6502 assembly using `dasm` (each assembly file can incorporate the BASIC stub I gave you to get your code running) to assemble them into `.prg` files, and all should run on the in-browser VIC-20 emulator. Each assembly source file should contain a description at the top of what feature you're testing with the program.

How/what to submit

I'll grab your assignment code from the private Git repository you've set up on gitlab.cpsc.ucalgary.ca per the term project info. Ensure that it's obvious which directory holds the Assignment 1 code. There should be a

Makefile present so I should only need to type make to build all the separate test programs.

John Aycock, 16 January 2021