

# RISC-V Assembler: Usage Instructions

## Introduction

This document outlines using the RISC-V assembler to convert your own assembly files into HEX files that can be used with your CPU for labs 5 onwards.

The assembler is available in two formats: the python source code file you can run locally using a python3 compiler and an assembly file you can run on any windows machine (your own or on ECF).

This assembler is provided to you to help you test instructions which are not tested by the provided tester testbench programs. It is your responsibility to test out all the instructions shown in the lab handout. The automarker may test any of these instructions.

## Usage

The assembler can be invoked using the following

```
assembler.exe [-h] [-o PATH] [-x] [-L N] input_file
```

The function of each flag is detailed below:

- h : displays help information on how to use the assembler.
- o : specifies the output file. If not provided, defaults to input file name + lab number.
- x : Skips including source line comments.
- L : Specifies the lab number. Allowed options: -L5 or -L7.

To familiarize yourself with the assembler, it is recommended that you first try to run one of the provided .s files to generate the corresponding .hex file for your CPU.