CREATOR: a tool for teaching assembly programming with RISC-V

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- Didactic simulator specially designed for students and teachers.
- Multiplatform:
  - It runs on a web browser without a server (desktops, tablets, and smartphones).
  - It also allows command line execution.
- Integrated environment for editing, compiling, executing, and debugging assembly programs.
- Support for creating teaching material, generates URLs with the programs created.
- Possibility to define and work with different architectures and assembly languages.
  - Currently: MIPS and RISC-V (RV32IMFD).
- Integration with ESP32-C3 microcontroller.

Edit and Compile

URL generation with examples for teaching materials

Run and Debug

Program loaded in memory with easy visualization of labels.
Execution flow knowing the current and next instruction at all times (useful in loops, branching instructions, and function calls).
Parameter passing convention and stack usage with alerts when it is not followed

Integration with ESP32-C3 microcontroller

https://creatorsim.github.io/creator