Switch and LED Demo

# Overview

This demonstration flashes the six LEDs (LED1-LED6) in a binary counting sequence. The counting/flashing speed is controlled by a software delay loop with the delay interval determined by which switch is pressed (if any).

# Comments and Suggestions

* Use the debugger to single-step through the code and observe the LED changes.
* Discuss the readability and maintainability improvements resulting from using the #defines for port pins for the LEDs and switches (placed in r\_cg\_userdefine.h). Both versions are included in the main file to allow students to compare.
* The delay variable d must be marked as volatile, or else the compiler may optimize it away. Try it out and see what code the compiler generates.
* Try changing the delay interval values for the switches to above 0xffff or below 0. Does the compiler complain?