Modules

A. Inputs
    1. Pushbutton
    2. Temperature sensor
    3. Potentiometer
    4. LDR
B. Outputs
    1. LED
    2. Seven Seg
    3. Piezo
    4. RGB LED
C. Both
    1. Power
    2. Main
    3. Programmer
    4. Serial

I. Digital output
    A. Blink an LED
    B. Potentiometer in series with output to dim LED blink
    C. LDR in series with output to dim LED blink

II. Digital input
    A. LED binary counter with pushbutton

III. Serial
    A. Blink LED corresponding to number on keyboard

IV. Polling vs. Interrupts
    A. Reseting LED binary counter with a pushbutton via polling vs. interrupts

V. ADC
    A. Temperature sensor that alerts via serial when temperature exceeds a threshold value
    B. Light LED binary representation based on potentiometer or LDR value

VI. Timers/Counter
    A. Serial stopwatch using pushbuttons and interrupts

VII. PWM
    A. Serial piezo keyboard
    B. RGB color clicker (use 3 buttons, one for each color)
    C. RGB LED controlled serially (255, 255, 255)

VIII. SPI/I2C
    A. Alarm clock
    B. Digital stopwatch
    C. Digital temperature readout

D. Countdown timer, set by potentiometer and pushbutton

IX. Memory
A.