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    int main (void)           //Example J
{ int counter, ON_time;      //Variable brightness

    setup_HW_Basic;
    counter = 0;
    ON_time = 160;

    LED_2_on;
    while (switch_3_up);

    while (1) {
        if (Led_2_is_on) {
            LED_2_off;
            for (int m = 0; m <= (320 - ON_time); m++)
                _delay_us(6); }
        else {LED_2_on;
            for (int m = 0; m <= ON_time; m++)
                _delay_us(6);}
        counter += 1;
        if ((counter >= 100) && (switch_3_down)) {
            counter = 0;
            ON_time = ON_time * 2/3; }
        if (ON_time == 1) {
            ON_time = 160;
            while (switch_3_down); }}}}
```

```
    int main (void)           //Example K
{unsigned char next_LED;      //LEDs in rotation

    setup_HW_Basic;
    _delay_ms(100);
    next_LED = eeprom_read_byte((uint8_t*)(0x1FA))%3;

    switch(next_LED){
    case 0:LED_1_on;break;
    case 1:LED_2_on;break;
    case 2:LEDs_on; break;}

    if (switch_1_down)next_LED = 1;
    if (switch_2_down)next_LED = 2;
    if (switch_3_down)next_LED = 3;

    eeprom_write_byte((uint8_t*)(0x1FA), next_LED);
    _delay_ms(40);
    SW_reset;}
```