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/*
 * Test Program 3.c
 *
 * Created: 2/8/2020 3:15:20 PM
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 */

#include <avr/io.h>

void ADC_init(void)
{
    ADMUX |= (1<<REFS0) | (1<<MUX0) | (1<<MUX2);
    ADCSRA |= (1<<ADEN) | (1<<ADSC) | (1<<ADPS2) | (1<<ADPS1) | (1<<ADPS0);
}

int main(void) {
    uint16_t adc;
    DDRB = 0b00000001;
    PORTB = 0b00000000;
    while (1) {
        ADC_init();
        while (ADCSRA & 0b01000000) {
            PORTB = 0b00000001;
        }
        adc = ADC;
    }
}
```