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; AssemblerApplication1.asm
;
; Created: 9/20/2023 4:57:58 PM
; Author : CAD
;
```

```
;PB2 reads SW0 and PB3 drives LED0
```

```
start:
```

```
    sbi VPORTB_DIR, 3    ;set direction of PB3 as output
    sbi VPORTB_OUT, 3    ;set output value to 1
    cbi VPORTB_DIR, 2    ;set direction of PB2 to input (default)
    ldi r16, 0x08        ;enable internal pull-up resistor at PB2
    sts PORTB_PIN2CTRL, r16
```

```
;Read switch position to control LED
```

```
loop:
```

```
    sbis VPORTB_IN, 2    ;skip next instruction if PB2 is 1
    cbi VPORTB_OUT, 3    ;clear output PB3 to 0, turn LED ON
    sbic VPORTB_IN, 2    ;skip next instruction if PB2 is 0
    sbi VPORTB_OUT, 3    ;set output PB3 to 1, turn LED OFF
    rjmp loop            ;jump back to loop
```