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;
; *****
;   Keypad Test
; *****
; Created: 10/11/2023 2:18:39 PM
; Author : CAD
;
```

start:

```
ldi r16, 0xFF //make into output
out VPORTD_DIR, r16
ldi r16, 0x00 //make into input
out VPORTC_DIR, r16

sbi VPORTB_DIR, 4 ; makes PB4(clear) to output
cbi VPORTB_DIR, 5 // input directly from pushbutton
```

wait_for_1:

```
sbis VPORTB_IN, 5 ;wait for PB5 being 1
rjmp wait_for_1 ;skip this line if PE0 is 1
```

output:

```
in r18, VPORTC_IN // gets the input from DIP switch and keypad

mov r18, 19 // copy it to another register

com r19 // complement r19 for display
out VPORTD_OUT, r19 // display
```

delay_break: ;delay lable for break delay

```
ldi r16, 80
outer_loop_break:
ldi r17, 133
inner_loop_break:
dec r17
brne inner_loop_break
dec r16
brne outer_loop_break
```

clear_flipflop: // clear the flip flop for next input

```
cbi VPORTB_OUT, 4
sbi VPORTB_OUT, 4
```

clear_check: // check if the clear has worked properly

```
sbic VPORTB_IN, 5
rjmp delay_break
```

```
rjmp wait_for_1    // go back to the start
```