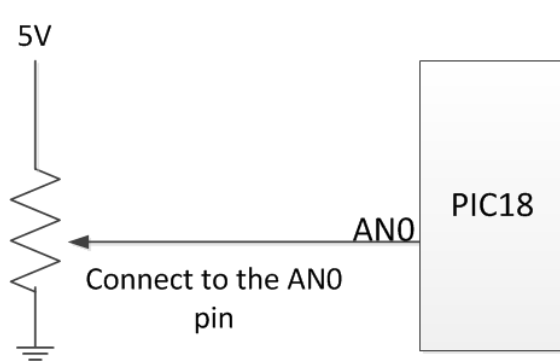


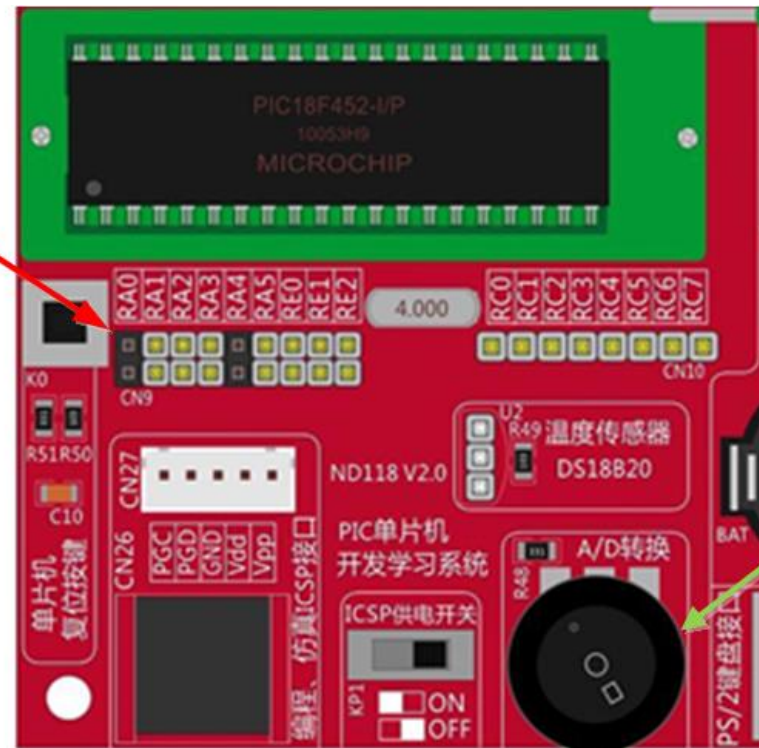
**ADC**

# Hardware Configuration

- We can change the voltage by varying the variable resistor.
- Connect the AN0 (PORTA.0) to the variable voltage source (set the jumper).

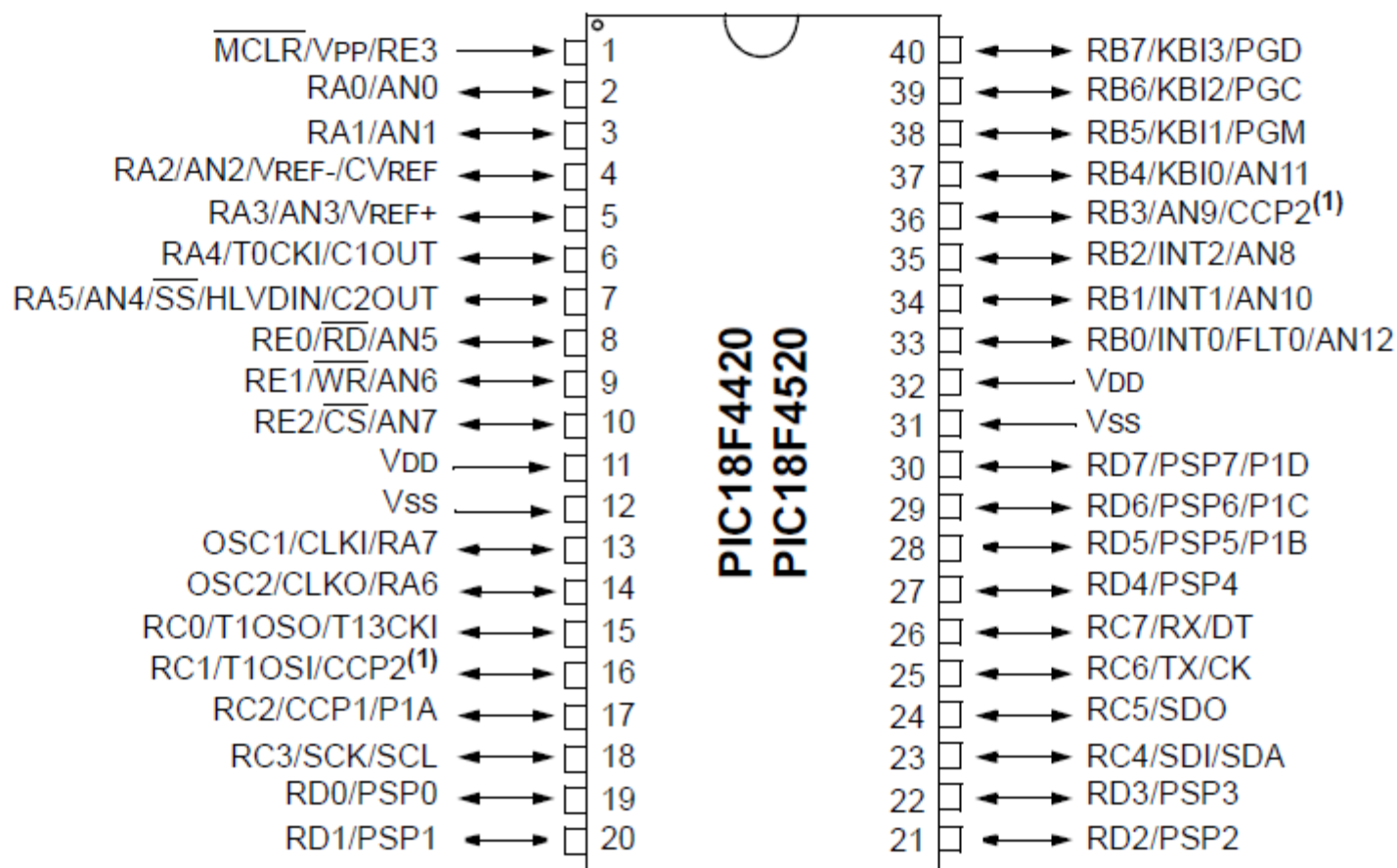


jumper



variable resistor

## 40-Pin PDIP



# ADC example program

```
LIST      P=18F4520
#include <P18F4520.INC>
CONFIG   OSC = XT
CONFIG   WDT = OFF
CONFIG   LVP = OFF
ORG 0x00
        goto Start
ORG 40
Start:   movlw 0x01      ; select channel AN0 and enable A/D
        movwf ADCON0,A ;
        movlw 0x0E      ; use VDD & VSS as reference voltages &
        movwf ADCON1,A ; configure channel AN0 as analog input
        movlw 0x88      ; select right justification, set TACQ and TAD
        movwf ADCON2,A ;
Here:    bsf ADCON0,GO,A ; start A/D conversion
wait_con:  btfsc ADCON0,DONE,A ; wait until conversion is done
          bra wait_con
          movff ADRESH,PRODH ; save conversion result
          movff ADRESL,PRODL ;
          nop
          nop
          goto Here
          END
```

**Answer questions 1 to 3**