

receiver.bas

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' receiver.bas

' Code for the receiver PIC in an example illustrating A/D conversion,
' hand shaking, serial communication, and LCD output

' Define non-default configuration settings (from the PIC16F88 code template)
#CONFIG
__CONFIG _CONFIG1, _INTRC_IO & _PWRTE_ON & _MCLR_OFF & _LVP_OFF
#ENDCONFIG

' Set the internal oscillator frequency to 8 MHz
DEFINE OSC 8
OSCCON.4 = 1
OSCCON.5 = 1
OSCCON.6 = 1

' Turn off the A/D converters
ANSEL = 0

' Define variables and constants
led Var PORTA.6 ' LED attached to pin RA6
sample_button Var PORTB.4 ' button attached to pin RB4
hand_shake Var PORTB.6 ' handshake line on pin RB6
serial Var PORTB.0 ' serial communication through pin RB0
pot_value Var BYTE ' POT value received from sender PIC
baud_rate Con 2 ' 9600 baud-rate mode for serial communication

' Blink the LED three times to indicate the PIC is running
Gosub Blink : Gosub Blink : Gosub Blink

' Wait 1/2 sec for the LCD to power up, and clear the LCD
Pause 500
Lcdout $FE, 1

' Make sure the handshake line is off initially
Low hand_shake

' Main program loop
start:
' Wait for the button to be pressed
Do While (sample_button == 0) : Loop

' Handshake with the sender PIC and receive the POT value serially
High hand_shake ' signals the sender PIC to send
Serin serial, baud_rate, pot_value ' wait for and receive POT value
Low hand_shake

' Display the received POT value on the LCD and blink the LED
Lcdout $FE, 1, "POT value = ", DEC pot_value
Gosub Blink

Goto start

End ' end of main program (not required since never reached)

' Subroutine to blink the LED on and off once
Blink:
High led ' turn on the LED
Pause 250 ' wait 1/4 second
Low led ' turn off the LED
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Return      Pause 250      ' wait 1/4 second      recei ver. bas