

Green highlight is the necessary parts for handshaking

```
#include <main.h>
```

```
#include <2408.C>
```

```
#define LCD_ENABLE_PIN PIN_B2
```

```
#define LCD_RS_PIN PIN_B0
```

```
#define LCD_RW_PIN PIN_B1
```

```
#define LCD_DATA4 PIN_B4
```

```
#define LCD_DATA5 PIN_B5
```

```
#define LCD_DATA6 PIN_B6
```

```
#define LCD_DATA7 PIN_B7
```

```
#include <lcd.c>
```

```
#define HS PIN_B3
```

```
#define mem1 0x00
```

```
// address of primary mem location set by pic 1
```

```
#define mem2 0x05
```

```
// address of secondary mem location set by pic 2
```

```
unsigned int read_buttons(void);
```

```
void write_to_our_mem(unsigned int,unsigned int);
```

```
void clear_our_mem(unsigned int);
```

```
unsigned int read_from_our_mem(unsigned int);
```

```
unsigned int x = 1;
```

[illegible]

```
void write_to_our_mem(unsigned int address,unsigned int data)
```

```
{
```

```
    while(!input(HS));           // check that the HS line is high
```

```
    output_low(HS);              // pull HS line low (we control the memory)
```

```
    i2c_start();                 // send i2c start pulse
```

```
    i2c_write(0xA0);             // send chip type and identity
```

```
    i2c_write(address);          // write chip internal address
```

```
    i2c_write(data);
```

```
    i2c_stop();                  // send stop pulse.
```

```
    delay_ms(20);
```

```
    input(HS);                   // turn the hs line to input (high resistance
```

```
}
```

```
unsigned int read_from_our_mem(unsigned int address)
{
    unsigned int val;

    while(input(HS));           // check that the HS line is high
    output_low(HS);             // pull HS line low (we control the memory)

    i2c_start();                // issue i2c start pulse
    i2c_write(0xA0);            // issue chip type and number
    i2c_write(address);        // send address to be read from
    i2c_start();                // issue another start pulse
    i2c_write(0xA1);            // issue chip type and number read command
    val=i2c_read();             // read data from the chip

    i2c_stop();
    delay_ms(20);

    input(HS);                  // turn the hs line to input (high resistance)

    return(val);
}
```