

```
C:\Windows\system32\cmd.exe
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>REM Compilation avec avr-gcc
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>SET GCCPATH=C:\Program Files (x86)\Atmel\AVR Studio 5.0\AVR Toolchain
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>SET DUDDPATH=D:\Programation\Ladder\Programmes\Tests\AvrGcc\AvrDude
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>SET COMPORT=COM3
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>path C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\System32\WindowsPowerShell\v1.0\;D:\Alex\CCS\PICC;D:\Alex\WPLAB IDE\WPLAB C32 Suite\bin;C:\Users\Usuario\AppData\Local\Microsoft\WindowsApps;C:\Program Files (x86)\Atmel\AVR Studio 5.0\AVR Toolchain\bin
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>path C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\System32\WindowsPowerShell\v1.0\;D:\Alex\CCS\PICC;D:\Alex\WPLAB IDE\WPLAB C32 Suite\bin;C:\Users\Usuario\AppData\Local\Microsoft\WindowsApps;C:\Program Files (x86)\Atmel\AVR Studio 5.0\AVR Toolchain\bin;D:\Programation\Ladder\Programmes\Tests\AvrGcc\AvrDude
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>REM Compilation des sources
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>rmdir obj /s /q
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>rmdir bin /s /q
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>mkdir obj
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>mkdir bin
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios>CD lib
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib>for %F in (*.c) do avr-gcc.exe -funsigned-char -funsigned-bitfields -O1 -fpack-struct -fshort-enums -g2 -Wall -c -std-gnu99 -MD -MP -mmcu=atmega328 -MF ..\obj\%F.d -MT ..\obj\%F.d -MT ..\obj\%F.o %F -o ..\obj\%F.o
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib>avr-gcc.exe -funsigned-char -funsigned-bitfields -O1 -fpack-struct -fshort-enums -g2 -Wall -c -std-gnu99 -MD -MP -mmcu=atmega328 -MF ..\obj\I2c1lib.c.d -MT ..\obj\I2c1lib.c.d -MT ..\obj\I2c1lib.c.o I2c1lib.c -o ..\obj\I2c1lib.c.o
I2c1lib.c:4:28: fatal error: ladder.h: No such file or directory
compilation terminated.
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib>avr-gcc.exe -funsigned-char -funsigned-bitfields -O1 -fpack-struct -fshort-enums -g2 -Wall -c -std-gnu99 -MD -MP -mmcu=atmega328 -MF ..\obj\LcdI2c1lib.c.d -MT ..\obj\LcdI2c1lib.c.d -MT ..\obj\LcdI2c1lib.c.o LcdI2c1lib.c -o ..\obj\LcdI2c1lib.c.o
LcdI2c1lib.c: In function 'LCD_I2C_Send':
LcdI2c1lib.c:43:5: warning: implicit declaration of function 'delay_ms'
LcdI2c1lib.c: In function 'LCD_I2C_Init':
LcdI2c1lib.c:96:5: warning: implicit declaration of function 'delay_us'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib>avr-gcc.exe -funsigned-char -funsigned-bitfields -O1 -fpack-struct -fshort-enums -g2 -Wall -c -std-gnu99 -MD
```

Activar Windows
Ve a Configuración para activar Windows.

```
C:\Windows\system32\cmd.exe
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib>avr-gcc.exe -funsigned-char -funsigned-bitfields -O1 -fpack-struct -fshort-enums -g2 -Wall -c -std-gnu99 -MD -MP -mmcu=atmega328 -MF ..\obj\LcdI2c1lib.c.d -MT ..\obj\LcdI2c1lib.c.d -MT ..\obj\LcdI2c1lib.c.o LcdI2c1lib.c -o ..\obj\LcdI2c1lib.c.o
LcdI2c1lib.c: In function 'LCD_I2C_Send':
LcdI2c1lib.c:43:5: warning: implicit declaration of function 'delay_ms'
LcdI2c1lib.c: In function 'LCD_I2C_Init':
LcdI2c1lib.c:96:5: warning: implicit declaration of function 'delay_us'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib>avr-gcc.exe -funsigned-char -funsigned-bitfields -O1 -fpack-struct -fshort-enums -g2 -Wall -c -std-gnu99 -MD -MP -mmcu=atmega328 -MF ..\obj\Usr1lib.c.d -MT ..\obj\Usr1lib.c.d -MT ..\obj\Usr1lib.c.o Usr1lib.c -o ..\obj\Usr1lib.c.o
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib>CD ..
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c>avr-gcc.exe -funsigned-char -funsigned-bitfields -O1 -fpack-struct -fshort-enums -g2 -c -std-gnu99 -MD -MP -mmcu=atmega328 -MF obj\test-i2c-1-lcd.d -MT obj\test-i2c-1-lcd.d -MT obj\test-i2c-1-lcd.o test-i2c-1-lcd.c -o obj\test-i2c-1-lcd.o
In file included from test-i2c-1-lcd.c:11:0:
test-i2c-1-lcd.h:4:15: warning: extra tokens at end of #ifndef directive
test-i2c-1-lcd.h:5:15: warning: ISO C99 requires whitespace after the macro name
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c>REM Linkage des objets
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c>avr-gcc.exe -o bin\test-i2c-1-lcd.elf obj\*.o -Wl,-Map=obj\test-i2c-1-lcd.map -Wl,--start-group -Wl,-lm -Wl,--end-group -mmcu=atmega328
obj\LcdI2c1lib.c.o: In function 'LCD_I2C_Enable':
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:49: undefined reference to 'I2C_MasterSetReg'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:51: undefined reference to 'I2C_MasterSetReg'
obj\LcdI2c1lib.c.o: In function 'LCD_I2C_Send4msb':
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:58: undefined reference to 'I2C_MasterSetReg'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:62: undefined reference to 'I2C_MasterSetReg'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:65: undefined reference to 'I2C_MasterSetReg'
obj\LcdI2c1lib.c.o: D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:68: more undefined references to 'I2C_MasterSetReg' follow
obj\LcdI2c1lib.c.o: In function 'LCD_I2C_Send':
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:43: undefined reference to 'delay_ms'
obj\LcdI2c1lib.c.o: In function 'LCD_I2C_Init':
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:83: undefined reference to 'delay_ms'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:84: undefined reference to 'I2C_MasterSetReg'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:87: undefined reference to 'I2C_MasterSetReg'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:88: undefined reference to 'delay_ms'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:92: undefined reference to 'delay_ms'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:96: undefined reference to 'delay_us'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:100: undefined reference to 'delay_us'
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\lib\LcdI2c1lib.c:104: undefined reference to 'delay_ms'
obj\test-i2c-1-lcd.o: In function 'I2C_Recv':
D:\Alex\Ldmicro\Ldmicro32\Ldmicro32-5.0c\ejercicios_c\test-i2c-1-lcd.c:40: undefined reference to 'I2C_MasterGetReg'
obj\test-i2c-1-lcd.o: In function 'I2C_Send':
```

Activar Windows
Ve a Configuración para activar Windows.

```
C:\Windows\system32\cmd.exe
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:62: undefined reference to `I2C_MasterSetReg'
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:65: undefined reference to `I2C_MasterSetReg'
obj\LcdI2clib.c.o:D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:68: more undefined references to `I2C_MasterSetReg' follow
obj\LcdI2clib.c.o: In function `LCD_I2C_Send':
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:43: undefined reference to `delay_ms'
obj\LcdI2clib.c.o: In function `LCD_I2C_Init':
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:83: undefined reference to `delay_ms'
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:84: undefined reference to `I2C_MasterSetReg'
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:87: undefined reference to `I2C_MasterSetReg'
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:88: undefined reference to `delay_ms'
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:92: undefined reference to `delay_ms'
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:96: undefined reference to `delay_us'
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:100: undefined reference to `delay_us'
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c\lib\LcdI2clib.c:104: undefined reference to `delay_ms'
obj\test-i2c-1-lcd.o: In function `I2C_Recv':
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c/test-i2c-1-lcd.c:40: undefined reference to `I2C_MasterGetReg'
obj\test-i2c-1-lcd.o: In function `I2C_Send':
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c/test-i2c-1-lcd.c:45: undefined reference to `I2C_MasterSetReg'
obj\test-i2c-1-lcd.o: In function `setupPlc':
D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c/test-i2c-1-lcd.c:111: undefined reference to `I2C_Init'
collect2: ld returned 1 exit status

D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c>REM Conversion Elf en Hex

D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c>avr-objcopy.exe -O ihex -R .eeprom -R .fuse -R .lock -R .signature bin\test-i2c-1-lcd.elf bin\test-i2c-1-lcd.hex
avr-objcopy.exe: 'bin\test-i2c-1-lcd.elf': No such file

D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c>REM Transfert du programme avec AvrDude

D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c>avrdude.exe -p atmega328 -c avr910 -P COM3 -b 19200 -u -v -F -U flash:w:bin\test-i2c-1-lcd.hex
"avrdude.exe" no se reconoce como un comando interno o externo,
programa o archivo por lotes ejecutable.

D:\Alex\Ldmicro\Ldmicro32\LdMicro32-5.0c\ejercicios_c>PAUSE
Presione una tecla para continuar . . .
```

Activar Windows
Ve a Configuración para activar Windows.