



## PicsimLab\_0\_6\_0

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<http://sourceforge.net/projects/picsim/>

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# Chapter 1

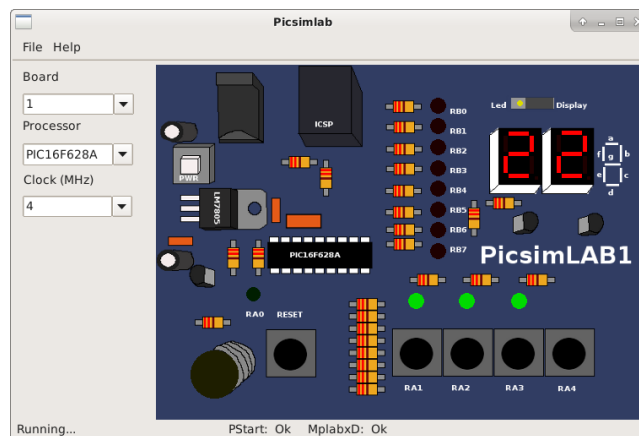
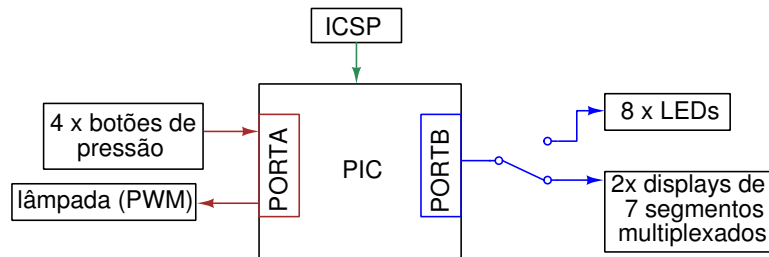
## Ajuda

### 1.1 Comandos

- Clique no conector ICSP para carregar um arquivo .hex.
- Clique no botão PWR para ligar/desligar o emulador.
- Os botões podem ser acionados pelo mouse ou pelas teclas 1, 2, 3 ...

## 1.2 Características da Placa 1

Emula a placa de desenvolvimento McLab1 da Labtools que utiliza um PIC16F628A.



Esquemático da placa 1.

Os códigos fontes de exemplo podem ser carregados através do menu **Help->examples** do Picsimlab.

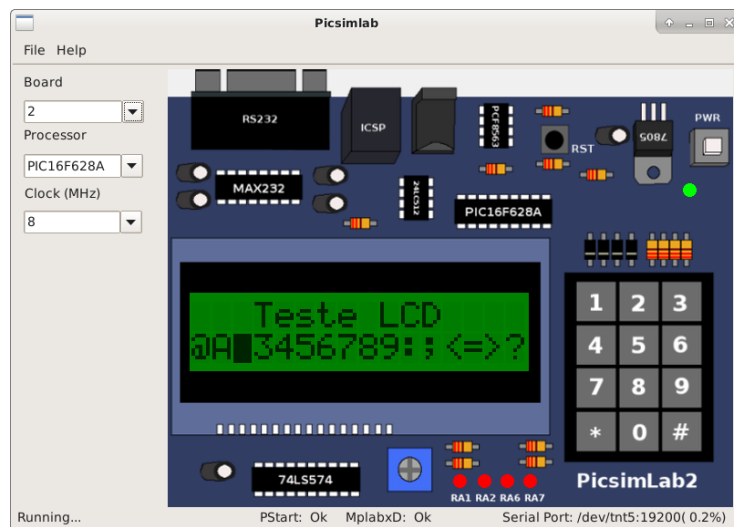
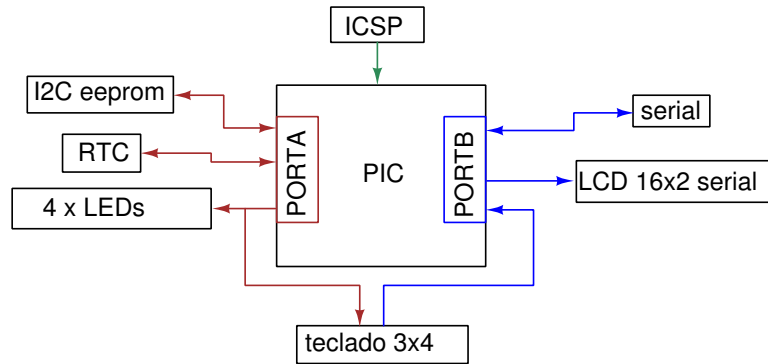
O código fonte de exemplo da placa picsimlab1 usando o **MPLABX** e o compilador **XC8** está no diretório: [src/teste\\_b1.X](#).

Compra do kit McLab1, manual e exemplos na área de download [www.mosaico.com.br](http://www.mosaico.com.br)

O hardware e a utilização do kit também é descrita no livro **Desbravando o PIC - Ampliado e Atualizado para PIC 16F628A** da editora **Erica** (ISBN: 978-85-7194-867-9).

### 1.3 Características da Placa 2

Emula uma placa didática desenvolvida pelo autor.



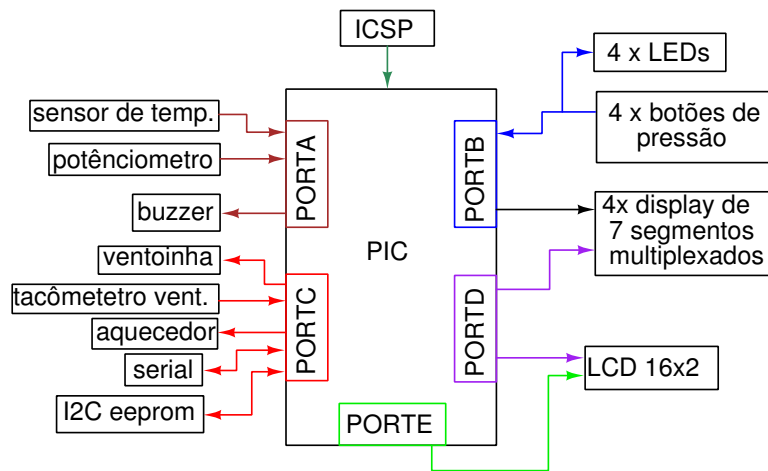
Esquemático da placa 2.

Os códigos fontes de exemplo podem ser carregados através do menu **Help->examples** do Picsimlab.

O código fonte de exemplo da placa picsimlab2 usando o [MPLABX](#) e o compilador [XC8](#) está no diretório: [src/teste\\_b2.X](#).

## 1.4 Características da Placa 3

Emula a placa de desenvolvimento McLab2 da Labtools que utiliza um PIC16F877A ou um PIC18F452.



### Esquemático da placa 3.

Os códigos fontes de exemplo podem ser carregados através do menu **Help->examples** do Picsimlab.

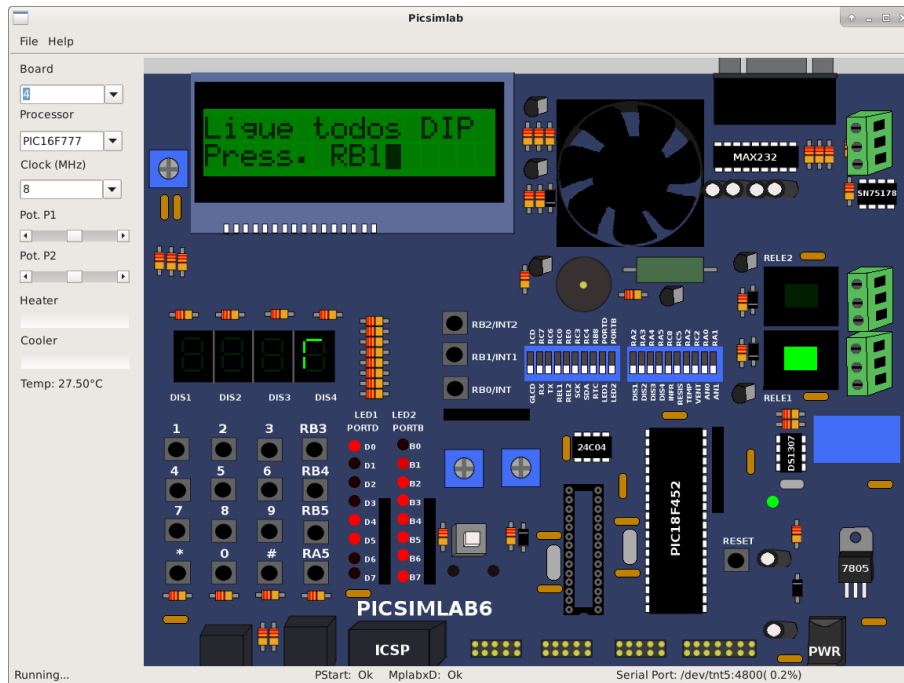
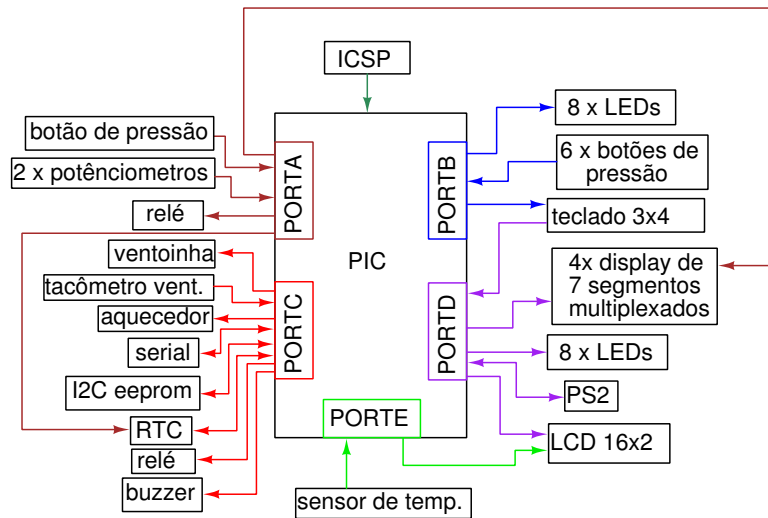
O código fonte de exemplo da placa picsimlab3 usando o [MPLABX](#) e o compilador [XC8](#) está no diretório: [src/teste\\_b3.X](#).

Compra do kit McLab2, manual e exemplos na área de download [www.mosaico.com.br](http://www.mosaico.com.br)

O hardware e a utilização do kit também é descrita no livro **Conectando o PIC - Recursos Avançados** da [editora Erica](#) (ISBN: 978-85-7194-737-5).

## 1.5 Características da Placa 4

Emula a placa de desenvolvimento PICGenios PIC18F e PIC16F Microchip da microgenios que utiliza um PIC16F877A ou um PIC18F452.



### Esquemático da placa 4.

Os códigos fontes de exemplo podem ser carregados através do menu **Help->examples** do Picsimlab.

O código fonte de exemplo da placa picsimlab4 usando o **MPLABX** e o compilador **XC8** está no diretório: [src/teste\\_b4.X](#).

Compra do kit PICGenios PIC18F e PIC16F Microchip e manual em [www.microgenios.com](http://www.microgenios.com)

## 1.6 Conexão com o Programador

Para utilizar o emulador de programador picstart+ embutido, instale um emulador NULL-MODEM:

- Windows: com0com <http://sourceforge.net/projects/com0com/>
- Linux: tty0tty <http://sourceforge.net/projects/tty0tty/> ou <https://github.com/lcgamboa/tty0tty>

Exemplos de configuração:

OS	porta PicsimLab	porta IDE	NULL-Modem prog.	Conexão
Windows	wport=com8	Mplab=com2	com0com	com2<=>com8
Linux	lport=/dev/tnt4	Piklab=/dev/tnt5	tty0tty	/dev/tnt4<=>/dev/tnt5

## 1.7 Depuração Integrada com o MPLABX

Para utilizar o IDE **MPLABX** para depurar e programar o PicsimLab, basta instalar o plugin [com-picsim-picsimlab.nbm](#) no MPLABX.

O plugin se conecta ao Picsimlab através de um socket TCP na porta 1234, permita o acesso no firewall.

[Tutorial: Como usar o MPLAPBX para programar e depurar o PICsimLab \(Inglês\)](#)



## **Chapter 2**

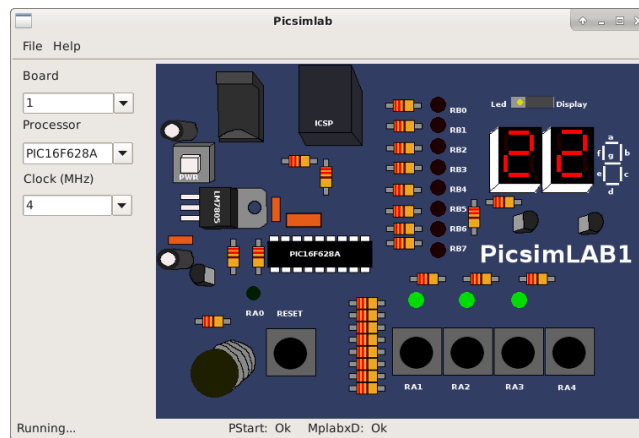
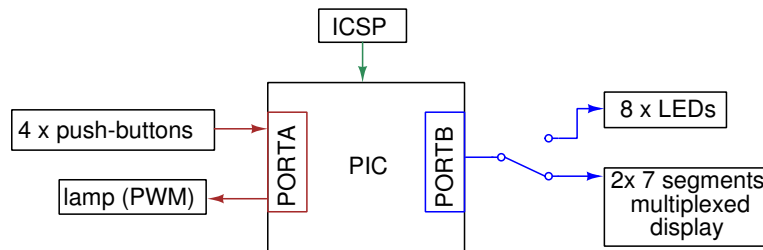
# **Help**

### **2.1 Commands**

- Click in ICSP connector to load an .hex file.
- Click in PWR button to ON/OFF the emulator..
- The buttons can be activated through mouse or keys 1, 2, 3 e 4.

## 2.2 Features of Board 1

It emulates the Labtools development board McLab1 that uses one PIC16F628A.



[Board 1 schematics.](#)

The code examples can be loaded in PicsimLab menu **Help->examples**.

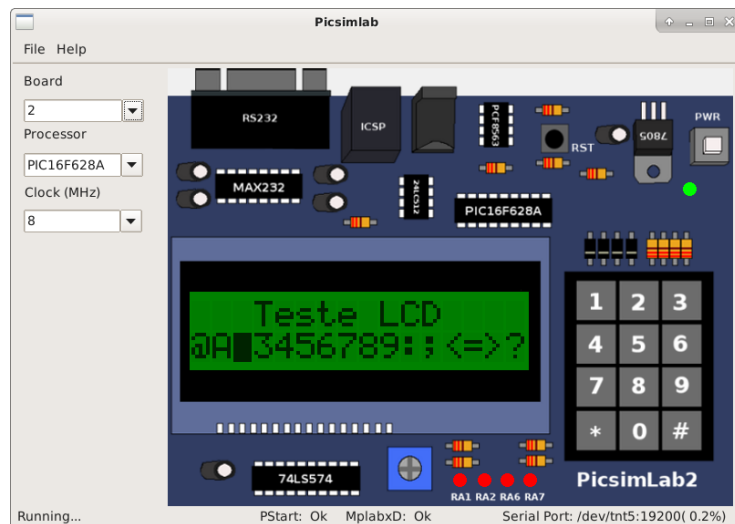
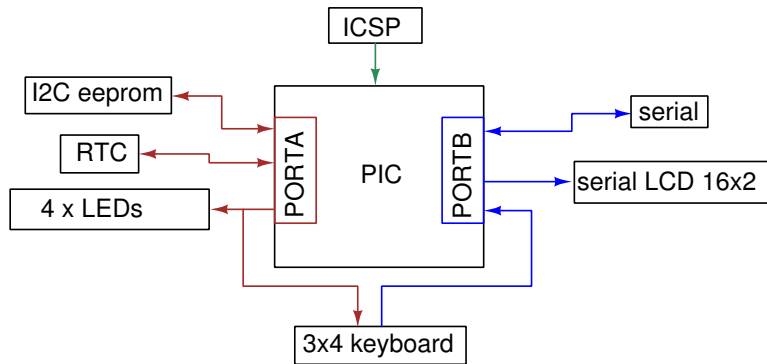
The source code of picsimlab1 example using [MPLABX](#) and [XC8](#) compiler are in the folder: [src/teste\\_b1.X](#).

To buy McLab1 kit, download manual and examples you can go to [www.mosaico.com.br](http://www.mosaico.com.br)

The hardware and the use of kit are described in the book **Desbravando o PIC - Ampliado e Atualizado para PIC 16F628A** of [Erica publisher](#) (ISBN: 978-85-7194-867-9).

## 2.3 Features of Board 2

It emulates an didatic board developed by author.



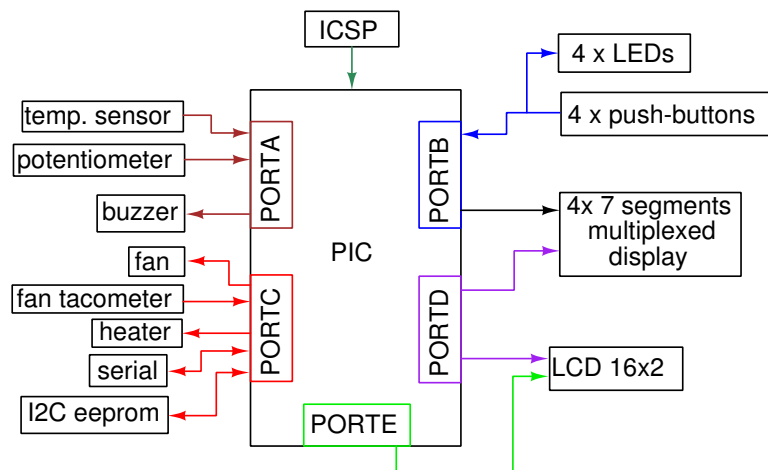
[Board 2 schematics.](#)

The code examples can be loaded in PicsimLab menu **Help->examples**.

The source code of picsimlab2 example using [MPLABX](#) and [XC8](#) compiler are in the folder: [src/teste\\_b2.X](#).

## 2.4 Features of Board 3

It emulates the Labtools development board McLab2 that uses one PIC16F877A or one PIC18F452.



[Board 3 schematics.](#)

The code examples can be loaded in PicsimLab menu **Help->examples**.

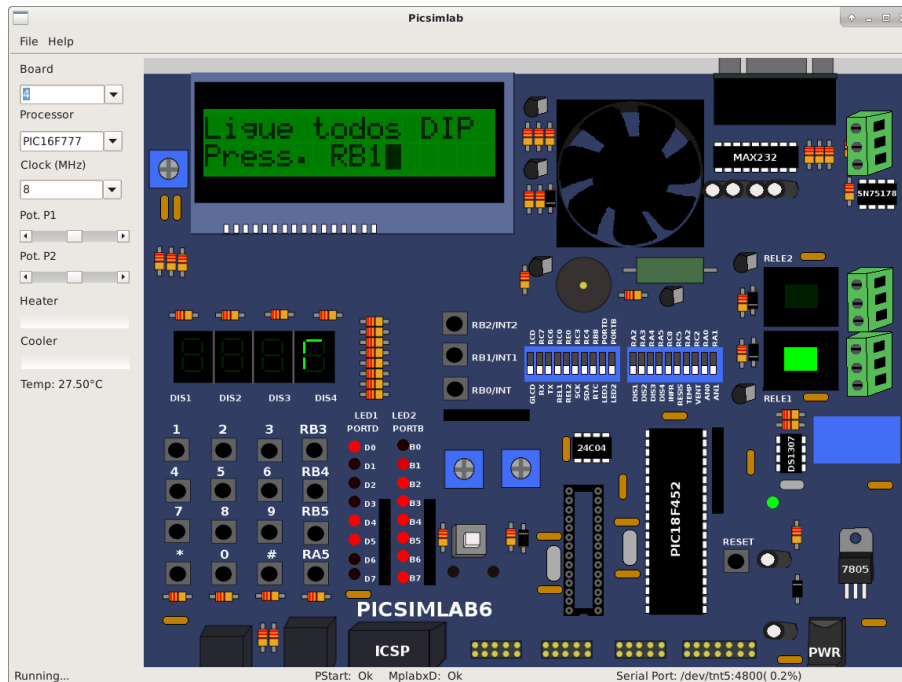
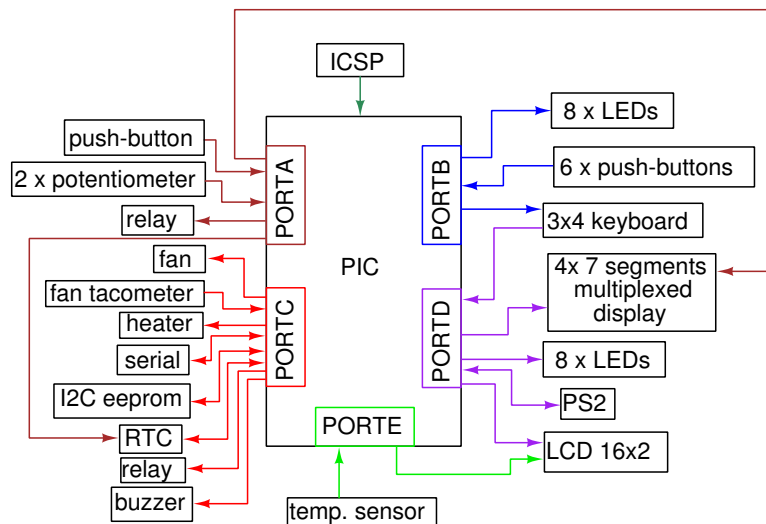
The source code of picsimlab3 example using **MPLABX** and **XC8** compiler are in the folder: [src/teste\\_b3.X](#).

To buy McLab2 kit, download manual and examples you can go to [www.mosaico.com.br](http://www.mosaico.com.br)

The hardware and the use of kit are described in the book **Conectando o PIC - Recursos Avançados** of [Erica publisher](#) (ISBN: 978-85-7194-737-5).

## 2.5 Features of Board 4

It emulates the microgenius development board PICGenios PIC18F e PIC16F Microchip that uses one PIC16F877A or one PIC18F452.



[Board 4 schematics.](#)

The code examples can be loaded in PicsimLab menu **Help->examples**.

The source code of picsimlab4 example using [MPLABX](#) and [XC8](#) compiler are in the folder: [src/teste\\_b4.X](#).

To buy PICGenios PIC18F and PIC16F Microchip kit and download manual [www.microgenios.com](http://www.microgenios.com).

## 2.6 Programmer Connection

To use the embedded picstart+ emulator, install an NULL-MODEM emulator:

- Windows: com0com <http://sourceforge.net/projects/com0com/>
- Linux: tty0tty <http://sourceforge.net/projects/tty0tty/> or <https://github.com/lcgamboa/tty0tty>

Configuration examples:

OS	PicsimLab port	IDE port	NULL-Modem prog.	Connection
Windows	wport=com8	Mplab=com2	com0com	com2<=>com8
Linux	lport=/dev/tnt4	Piklab=/dev/tnt5	tty0tty	/dev/tnt4<=>/dev/tnt5

## 2.7 MPLABX Integrated Debug

To use the [MPLABX](#) IDE for debug and program the PicsimLab, install the plugin [com-picsim-picsimlab.nbm](#) in MPLABX.

The plugin connect to Picsimlab through a TCP socket using port 1234, and you have to allow the access in the firewall.

[Tutorial: how to use MPLABX to program and debug PICsimLab.](#)

## Chapter 3

# How To's

- [How to use MPLABX to program and debug PICsimLab.](#)
- [How to Compile PICsimLab and Create New Boards.](#)

## Chapter 4

# License

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