

A propos

Digimulador is an opensource free Digirule simulator (<https://bradsprojects.com/digirule2/>). It comes with an integrated assembler which helps a lot in developping programs for the digirule.

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Installation

Automatic installation with the MSI

Just launch the MSI. It will install everything for you. Just be careful when choosing the installation path, by default, it will go in a very strange place..

Manual installation

You must have Python 3.6 or above with tkInter - usually installed with your python distribution. On Ubuntu, if you don't have tkintern install it via

```
sudo apt install python3-tk
```

besides that, you will need to install *serial* and *serial-tool* with

```
sudo pip3 install serial serial-tool
```

Instruction set

Digimulador offers several instruction sets :

- the legacy *Digirule 2A*
- the *Digirule 2B* enhanced instruction set. See <https://github.com/wawachief/DGR2B> for more informations.
- the new *digirule 2U* with USB communication

Assembler Quick guide

Assembler special commands

- **%define** : defines constants. Usage : **%define NAME VALUE**

```
// Constants
%define statusRegister 252
```

```

%define dataLEDRegister 255
%define hideAddressBit 2

    • %data : inserts one or many bytes in the code. Usage : %data NAME
      byte1 byte2 ... byten

// Variables declarations
%data index 0
%data lineadr 0

// Drawing
%data POV 126 129 165 129 165 153 129 126

```

Labels

Labels begin with `:`.

```

:loop
    copyir lineadr dataLEDRegister
    incr lineadr
    decrjz index
    jump loop

```

Comments

Comments begin with `//`

Numbers

Numbers are 8 bits long and can be in decimal (127 for example), hexadecimal (beginning with `'0x'`) or in binary , beginning with `0b` (`0b11110101` for example).

Licence

GNU General Public License v3.0