

LAB 0 : Installation of Softwares

PART I – DesignSpark PCB

PART II – Library Loader

PART III – Processing

PART IV – PuTTY

LAB 0 OBJECTIVE

- Download and install DesignSpark PCB, Library Loader, Processing and Virtual Serial Port Emulator.

LAB 0 : Installation of softwares

DesignSpark PCB

Library Loader

Processing

VSPE

PART I – DesignSpark PCB



Microsoft



- This program allows you to :
 - Generate a netlist
 - Edit a PCB layout and generate Gerber files

Download and install DesignSpark PCB

1 Run the installer

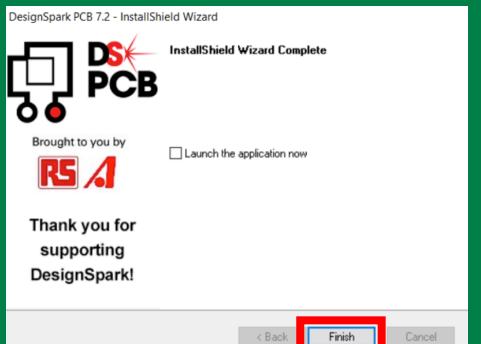
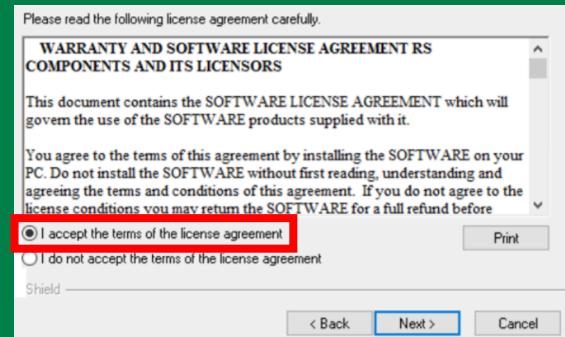
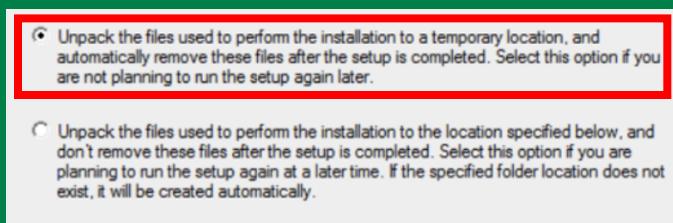
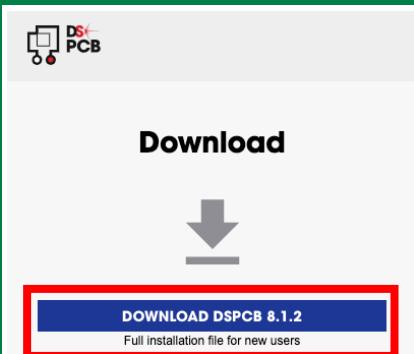
Go to the location where you downloaded the installer. Unzip the downloaded file and run the installer: **DesignSparkPCB vX.X.X.exe**. This will launch the InstallShield Wizard.

2 Keep default installation options selected (first item)

3 Accept the licence agreement and select the installation directory

4 Select a destination location for your program (by default, it goes to C:\Program Files (x86))

5 Select a destination location for your libraries and finish the installation by clicking on "Finish"



LAB 0 : Installation of softwares

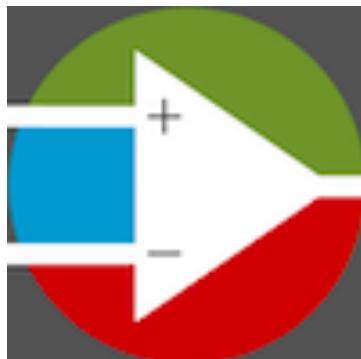
DesignSpark PCB

Library Loader

Processing

VSPE

PART II – Library Loader



- This program allows you to :
 - Convert the symbols and the PCB footprints into DesignSpark PCB's ECAD format ;
 - Load them into DesignSpark PCB.

1

Download and install Library Loader

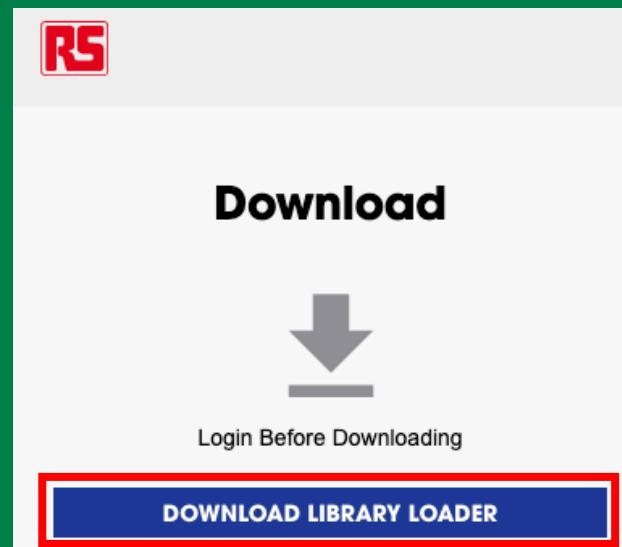
<https://www.rs-online.com/designspark/pcb-part-library>

- ① Run the installer

Go to the location where you downloaded the installer. Unzip the downloaded file and run the installer:
mikroProg_Suite_for_PIC_vXXX_setup.

- ② Extract the content of the .zip file

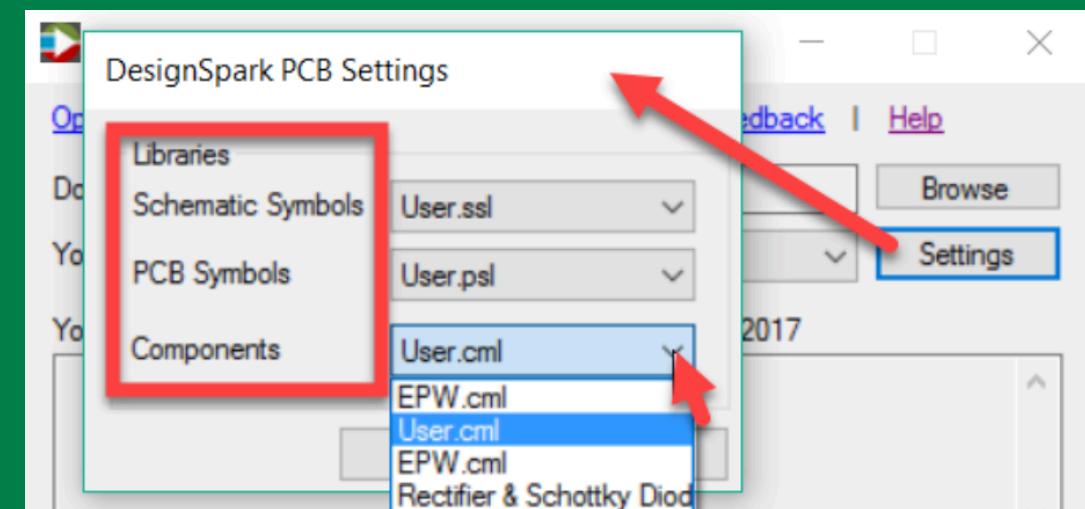
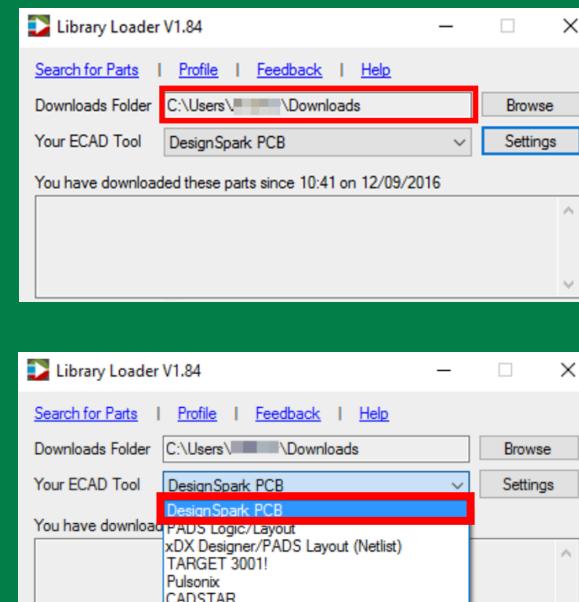
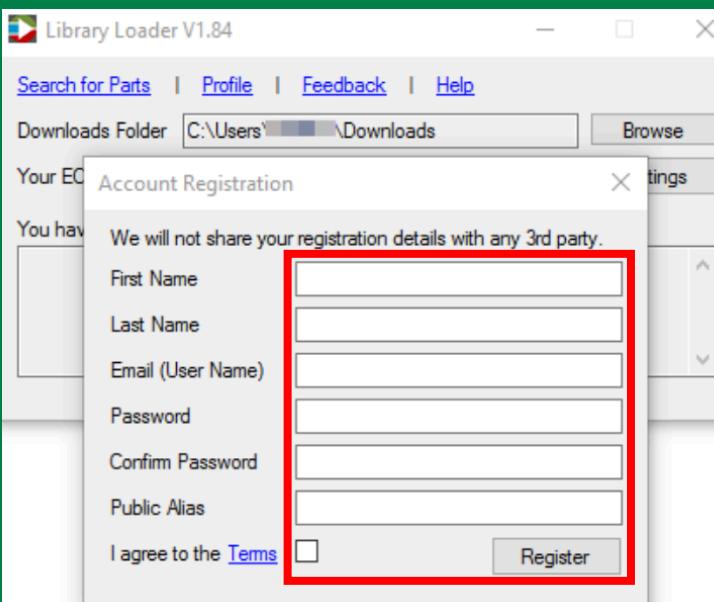
- ③ Run the LibraryLoaderSetupXvXX.msi file as an administrator



2

Register and finish installation of Library Loader

- ① Open Library Loader
- ② Go to “Profile” and register
- ③ Make sure the ‘Downloads Folder’ matches the location where your web browser downloads files to. **NOT a DesignSpark PCB Library**
- ④ Select your ECAD Tool : DesignSpark PCB, go to ‘Settings’ and select your schematic (**.ssl**), PCB (**.psl**) and component (**.cml**) target library.



3

Search components on the Search engine

- ① Launch Library loader
- ② Go to <http://componentsearchengine.com/>
- ③ Download components

Electronic Component
SEARCH ENGINE



Components matching your search: pic18F4550						
Image	ECAD Model ↓	3D	D.S.	Description	Manufacturer	Compare Prices / Stock
				8-bit Microcontrollers - MCU 32kBF 2048RM FSUSB2	Microchip	PIC18F4550-I/ML
				In Stock 3.60 GBP	BUY NOW	
				8-bit Microcontrollers - MCU 32kBF 2048RM FSUSB2	Microchip	PIC18F4550-I/P
				In Stock 3.51 GBP	BUY NOW	
				8-bit Microcontrollers - MCU 32kBF 2048RM FSUSB2	Microchip	PIC18F4550-I/PT

PIC18F4550-I/P - Microchip

Download PCB Footprints and Schematic Symbols - FREE

PIC18F4550-I/P - Microchip - Image | Symbol | PCB Footprint | 3D Models

1	-NC/LV/VPP/ RE3	R87/FE15/PGD	40
2	PA0/AN0	R86/FE12/PIN	39
3	PAL/AN1	R85/KB11/PGM	38
4	PA2/AN2/VREF-/CVREF	R84/KB10/AN11/CSPFP	37
5	PA3/AN3/VREF+	R83/KB10/AN12/CSPFP	36
6	PA4/TCK/CL0UT/RCV	R82/INT2/AN0/VMO	35
7	PA5/AN4/-S9/HLDVDIN/CZOUT	R81/INT1/AN10/SCK/SCL	34
8	PA6/AN5/-S9/HLDVDIN/CZOUT	R80/INT0/FLTO/AN12/SDI	33
9	PA7/AN6/CKS2PP	VDD	32
10	RE2/AN7/OESPP	VSS	30
11	RE3/AN8/OESPP	RDT/SP97/P10	29
12	VSS-2	RDS/SP96/P10	28
13	OSC1/CLK1	RDS/SP95/P1B	27
14	OSC2/CLK2	RDC/SP94/P1B	26
15	RC0/T10S1/CCP1-/U0R	RDC/SP93/P1B	25
16	RC1/T10S1/CCP2-/U0R	RDC/SP92/P1B	24
17	RC2/T10S1/CCP1/FIA	RDC/SP91/P1B	23
18	VUSB	RCA4/D-/VM	22
19	PD0/SP90	RDS/SP93/P1B	21
20	PD1/SP91	RDS/SP92/P1B	20

Click to zoom

Click to zoom

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LAB 0 : Installation of softwares

DesignSpark PCB

Library Loader

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VSPE

PART III – Processing



Microsoft



- This program allows you to :
 - Program easily a Graphical User Interface in Java

Download and install Processing

<https://processing.org/download/>

- 1 Download the software
- 2 On Windows : double-click on the .zip file and drag the folder into a location on your hard disk, uncompress the file and double-click processing.exe to start.
- 2 On Mac OS X : double-click on the .zip file and drag the folder into a location on your hard disk, uncompress the file and drag the Processing icon into Applications folder.
- 2 On Linux : Open a terminal window and type **tar xvzf processing-xxxx.tgz** (replace xxxx with the rest of the file's name, which is the version number.) This will create a folder named processing-2.0 or something similar. Then change to that directory: **cd processing-xxxx** and run it: **./processing**

Download Processing. Processing is available for Linux, Mac OS X, and Windows. Select your choice to download the software below.



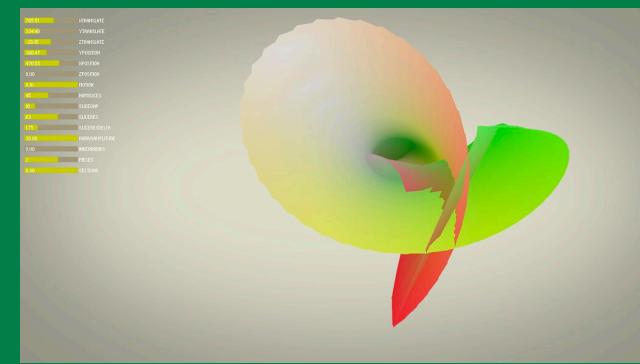
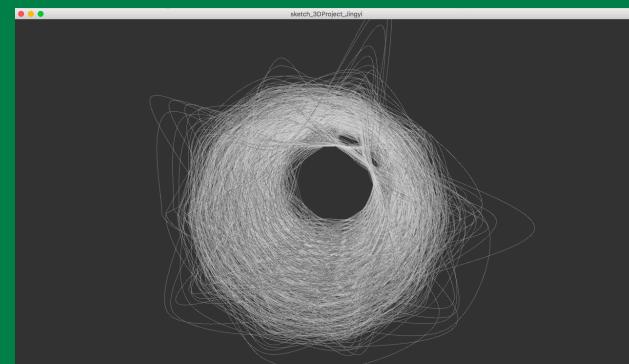
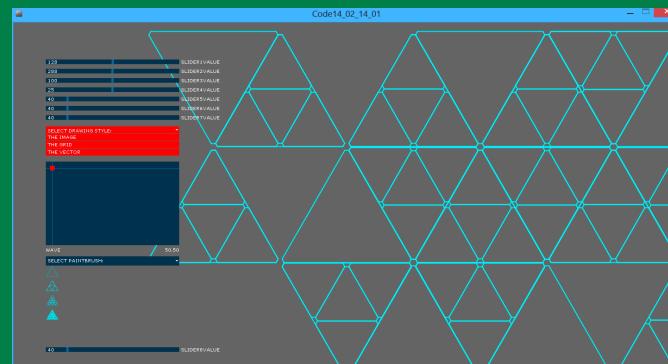
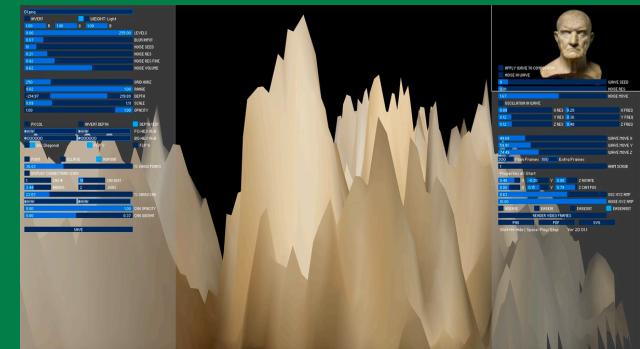
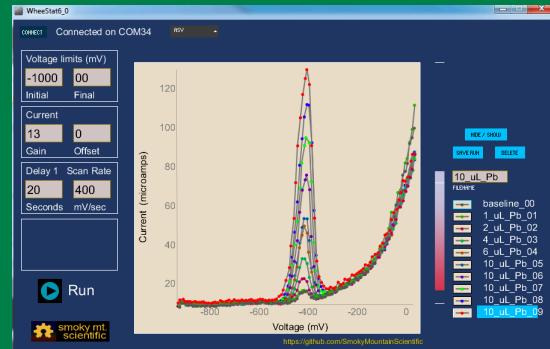
3.5.3 (3 February 2019)

Windows 64-bit	Linux 64-bit	Mac OS X
Windows 32-bit	Linux 32-bit	
	Linux ARM (running on Pi?)	

2

Add ControlP5 library

- 1 Go to Sketch -> Import Library... -> Add Library... and add ControlP5.



LAB 0 : Installation of softwares

DesignSpark PCB

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VSPE

PART IV – Virtual Serial Port Emulator



Microsoft



- This program allows you to :
 - Emulate a virtual Serial port to simulate a Processing code with Proteus

1

Download and install VSPE

<http://www.eterlogic.com/Products.VSPE.html>

- ① Download the software and extract the content of the .zip file.
- ② Laucher the wizard, accept the terms and the license agreement, click “next” and then “install”
- ③ Click on Finish to complete the setup



LAB 0 OBJECTIVE

- Download and install DesignSpark PCB, Library Loader, Processing and Virtual Serial Port Emulator.

That's all Folks!