تطبيقات ميكاترونيك -1-

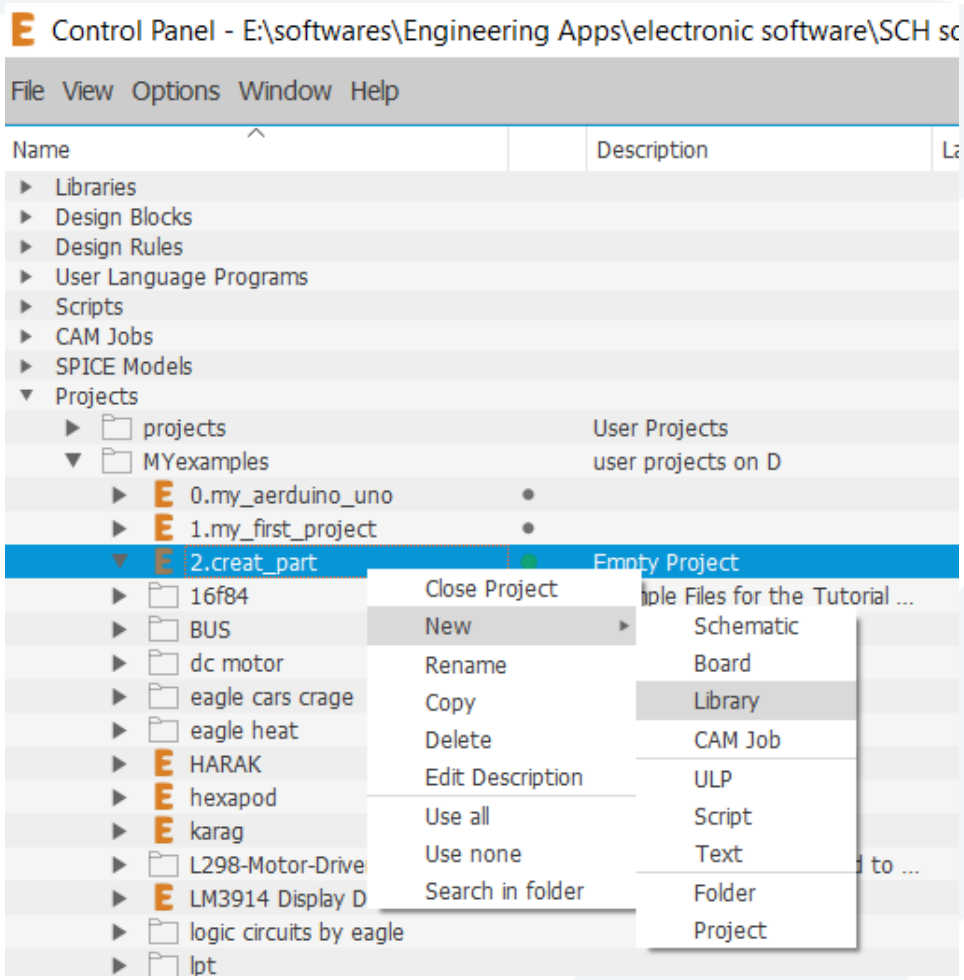
Lecture No. 3

Create Library By Eagle part 3

Dr. Eng. Essa Alghannam

روبوت و أنظمة ذكية - سنة ثالثة

2022-2023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File View Options Window Help
Name
Description
Libraries
Design Blocks
Design Rules
User Language Programs
Scripts
CAM Jobs
SPICE Models
Projects
projects
User Projects
MYexamples
user projects on D
0.my_aerduino_uno
1.my_first_project
2.creat_part
Empty Project
16f84
BUS
dc motor
eagle cars crage
eagle heat
HARAK
hexapod
karag
L298-Motor-Drive
LM3914 Display D
logic circuits by eagle
lpt
Close Project
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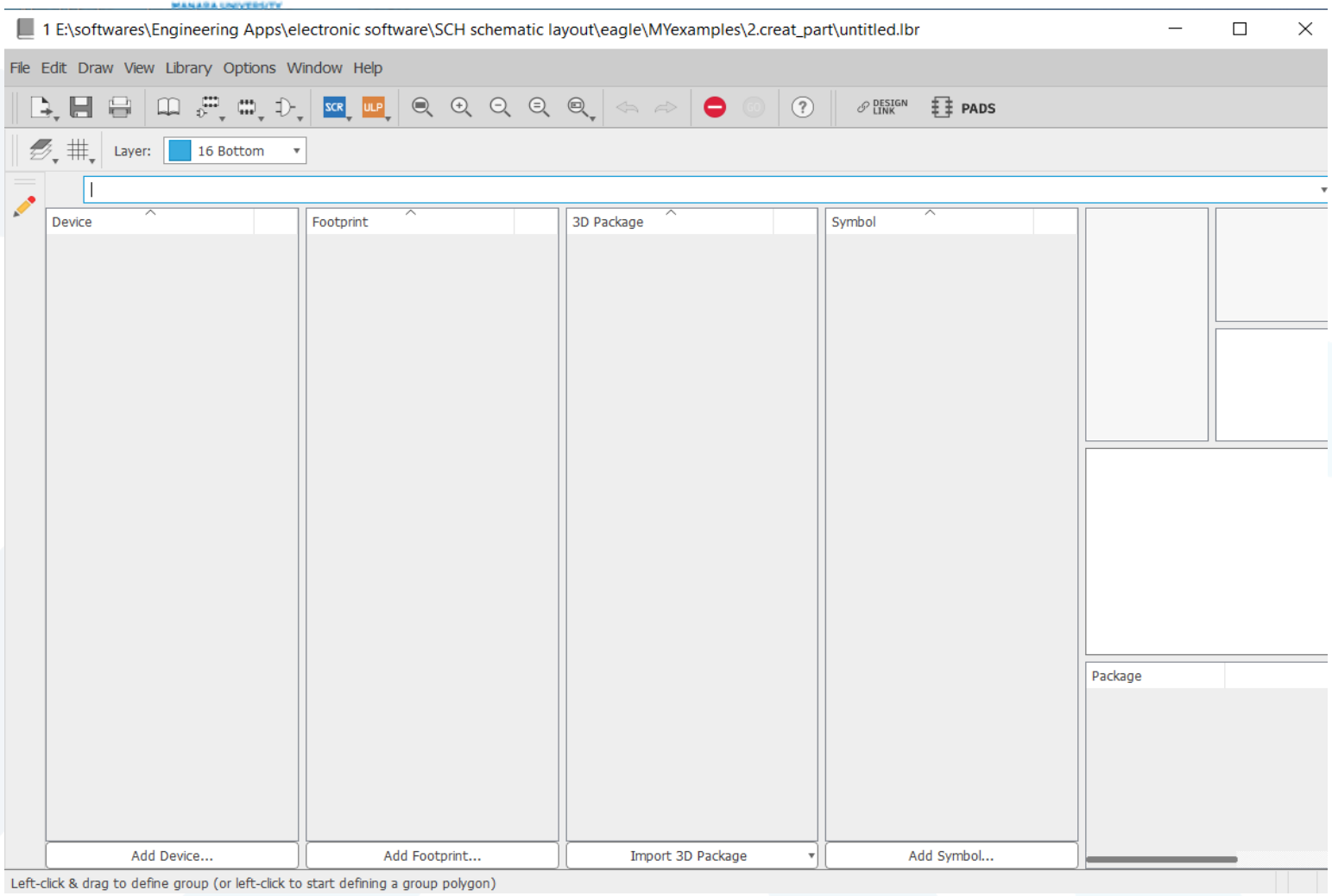
Edit Description
Use all
Use none
Search in folder
Schematic
Board
Library
CAM Job
ULP
Script
Text
Folder
Project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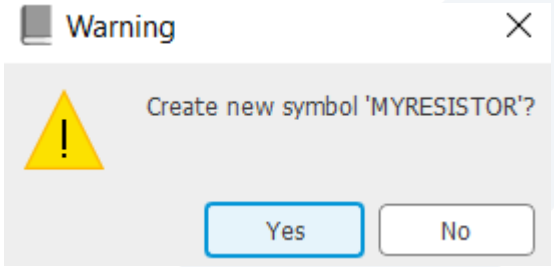
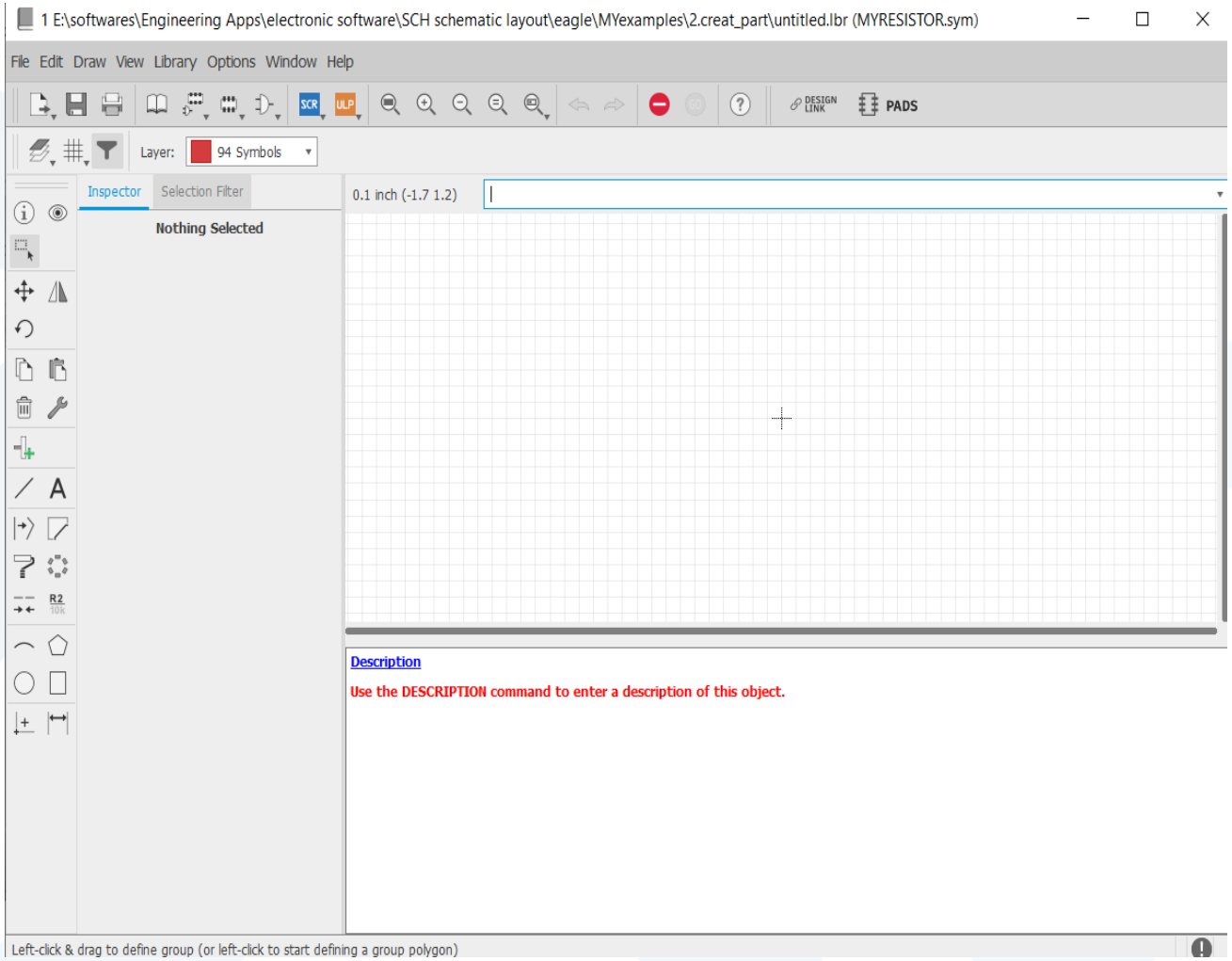
File Edit Draw View Library Options Window Help
PADS
Layer: 16 Bottom
Device
Footprint
3D Package
Symbol
Package
Add Device...
Add Footprint...
Import 3D Package
Add Symbol...
Left-click & drag to define group (or left-click to start defining a group polygon)


Symbol
Add Symbol
New Symbol Name:
RES
OK
Import...
Cancel
Add Symbol...


Warning
Create new symbol 'MYRESISTOR'?
Yes
No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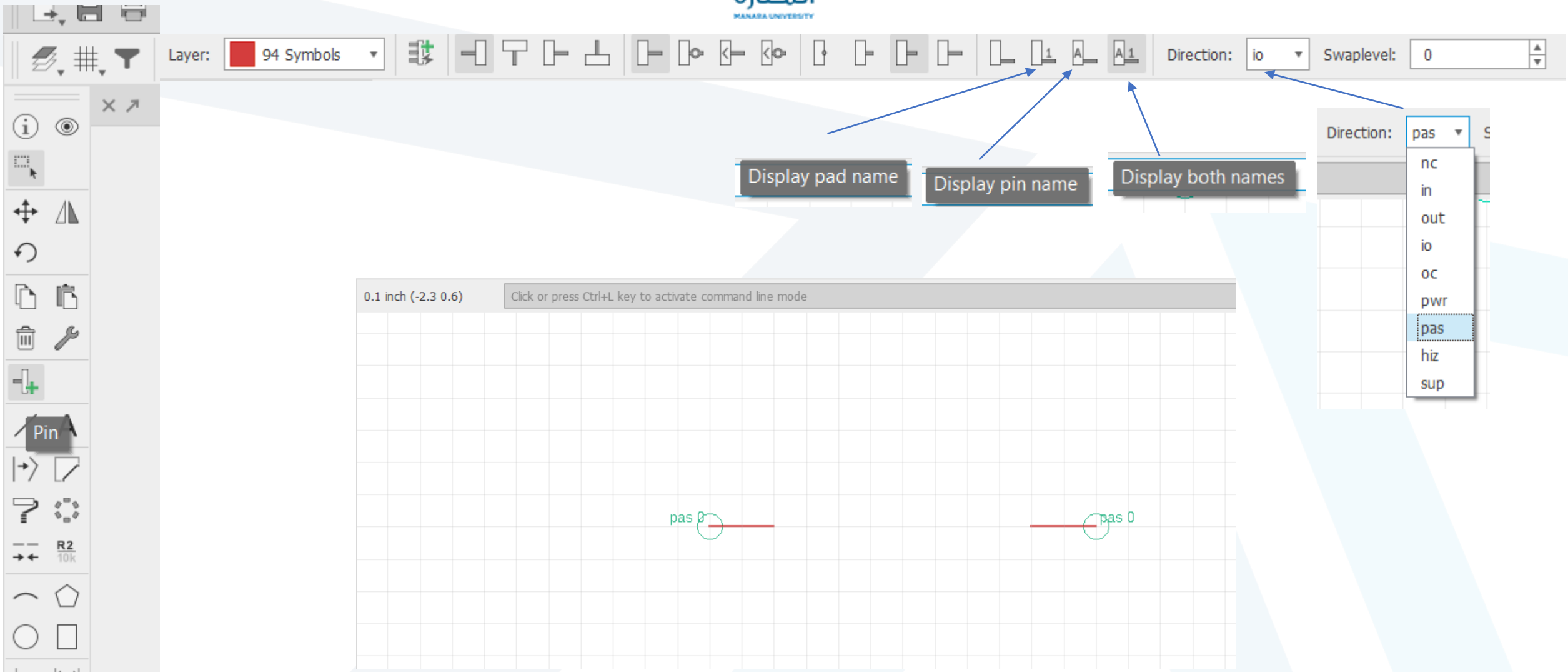
File Edit Draw View Library Options Window Help
PADS
Layer:
94 Symbols
Inspector
Selection Filter
Nothing Selected
0.1 inch (-1.7 1.2)
Description
Use the DESCRIPTION command to enter a description of this object.
Left-click & drag to define group (or left-click to start defining a group polygon)


Layer:
94 Symbols
Direction:
io
Swaplevel:
0
Display pad name
Display pin name
Display both names
Direction:
pas
nc
in
out
io
oc
pwr
pas
hiz
sup
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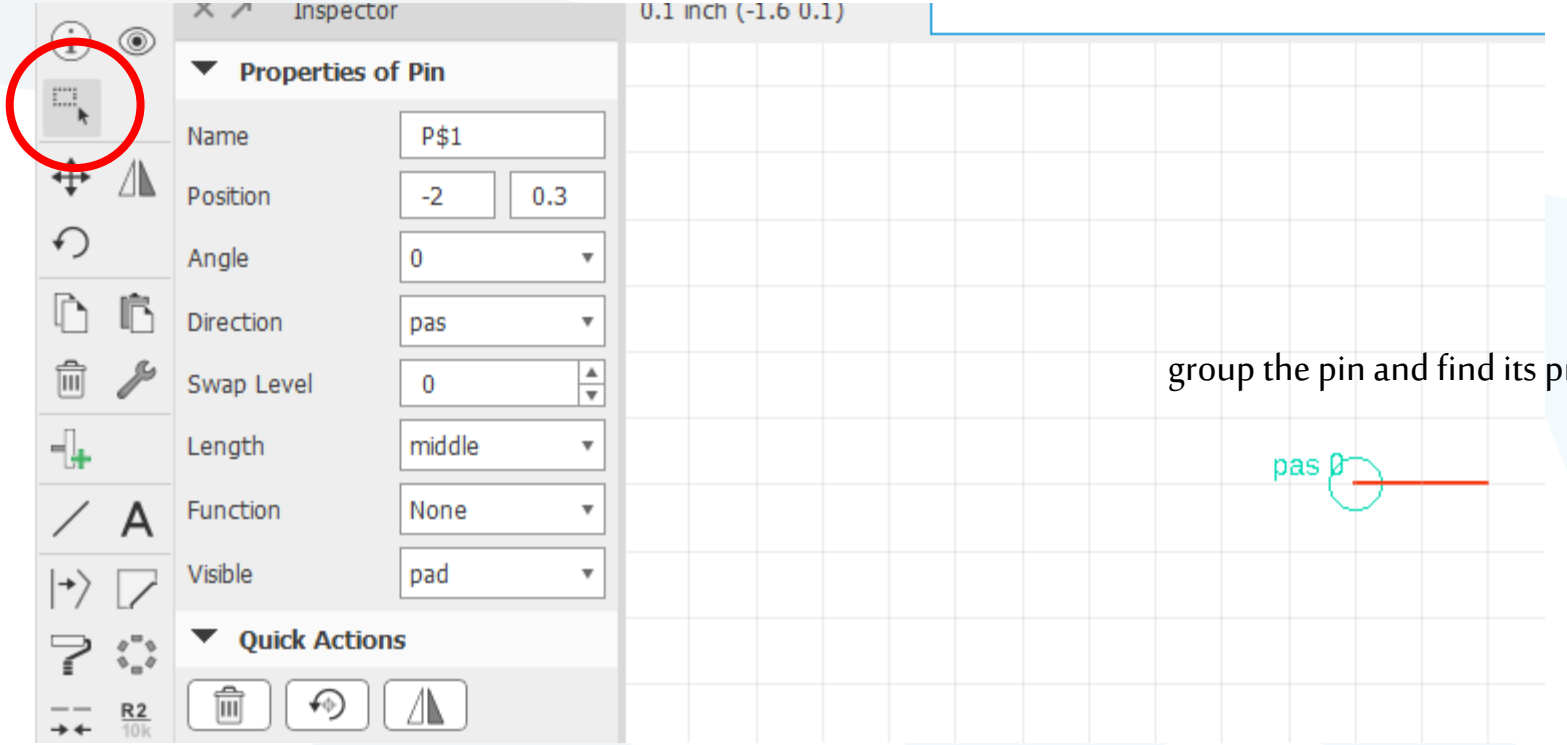
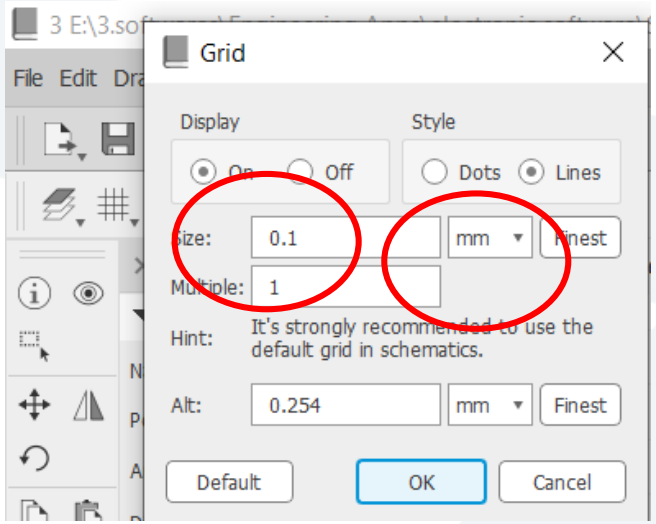
Click or press Ctrl+L key to activate command line mode
Pin
pas 0
pas 0



group the pin and find its properties


Grid
Display
Style
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Off
Dots
Lines
Size:
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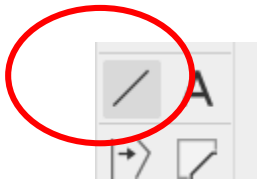
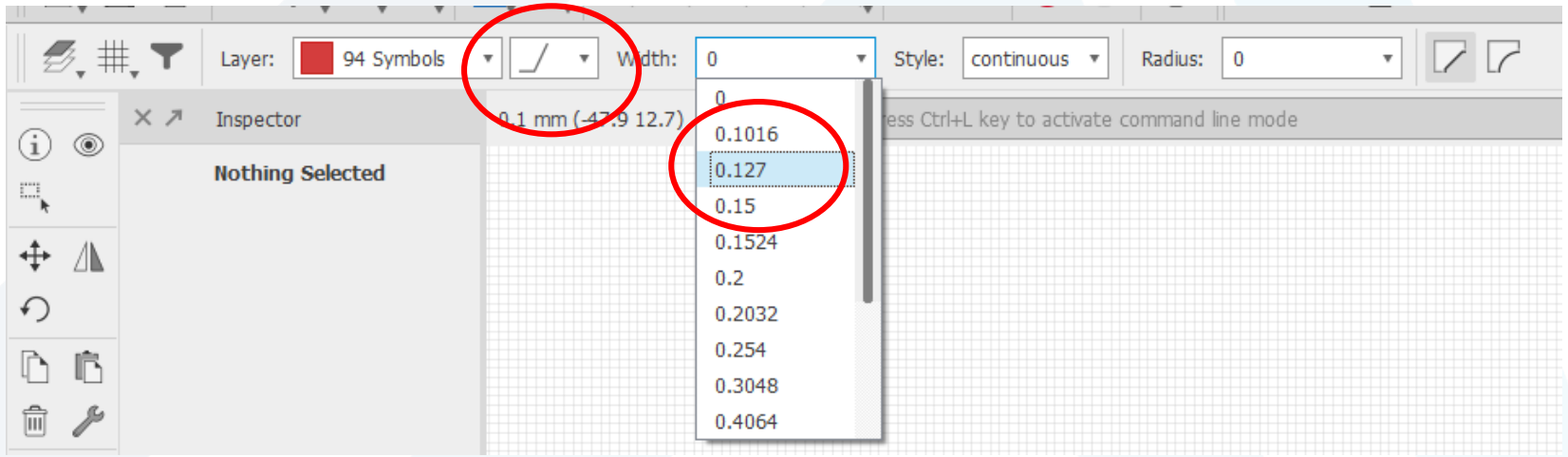
mm
Finest
Multiple:
1
Hint:
It's strongly recommended to use the default grid in schematics.
Alt:
0.254
mm
Finest
Default
OK
Cancel

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Style:
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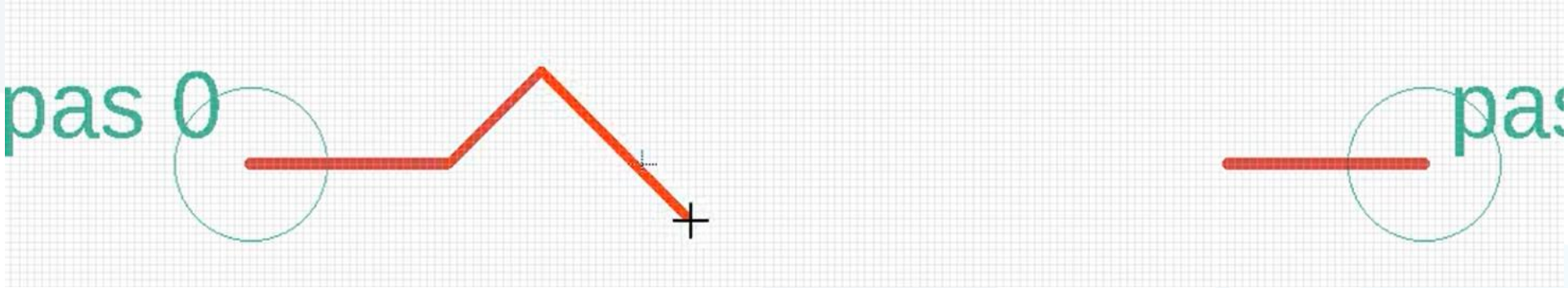
0.3048
0.4064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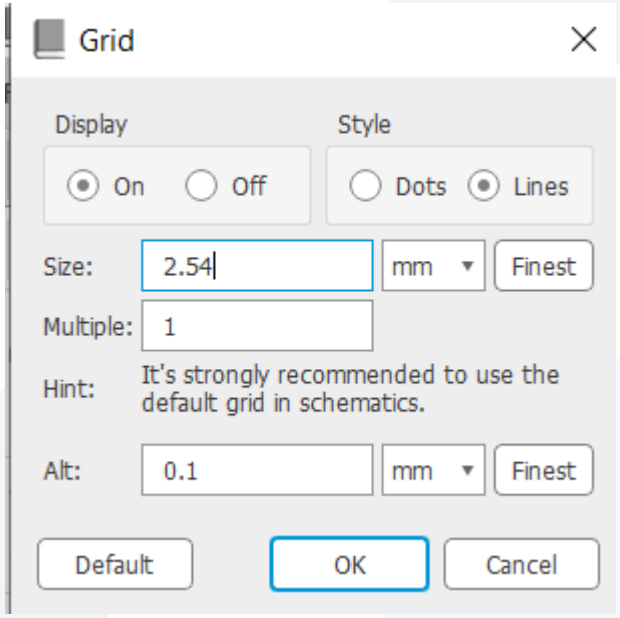
pas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On
Off
Dots
Lines
Size:
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mm
Finest
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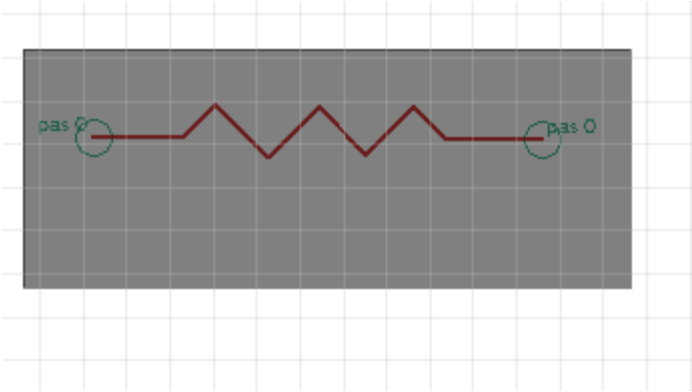
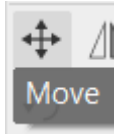
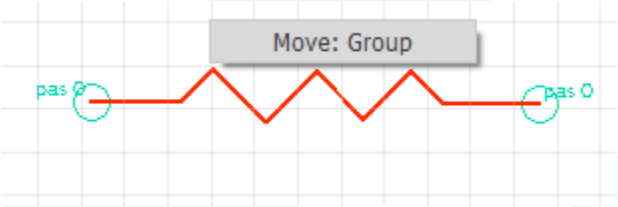
It's strongly recommended to use the default grid in schematics.
Alt:
0.1
mm
Finest
Default
OK
Cancel

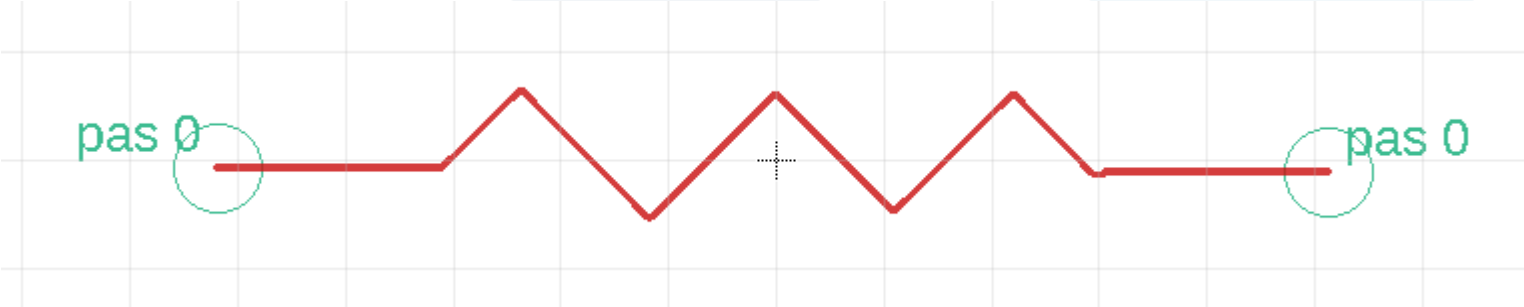


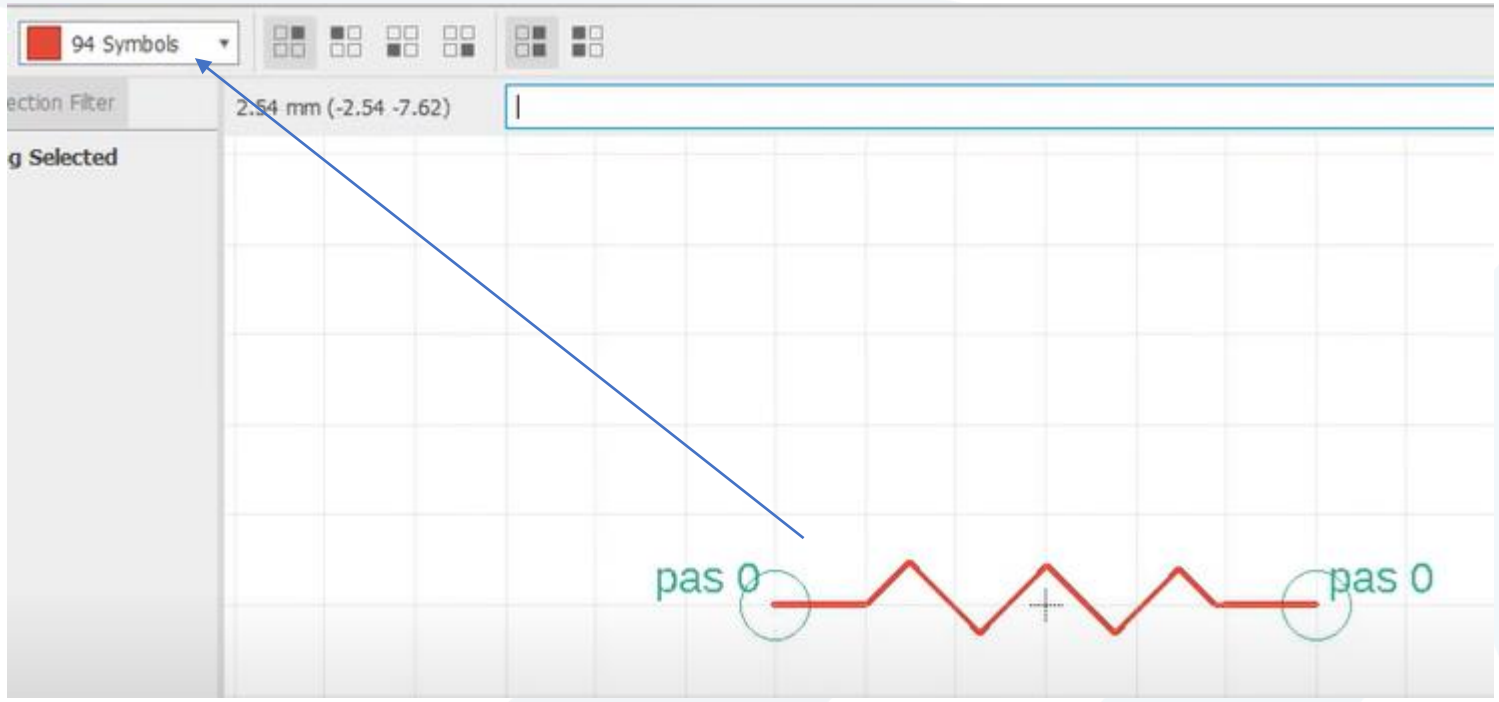
Right click then move group





Use alt grid to move smoothly

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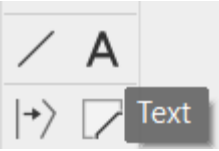
pas 0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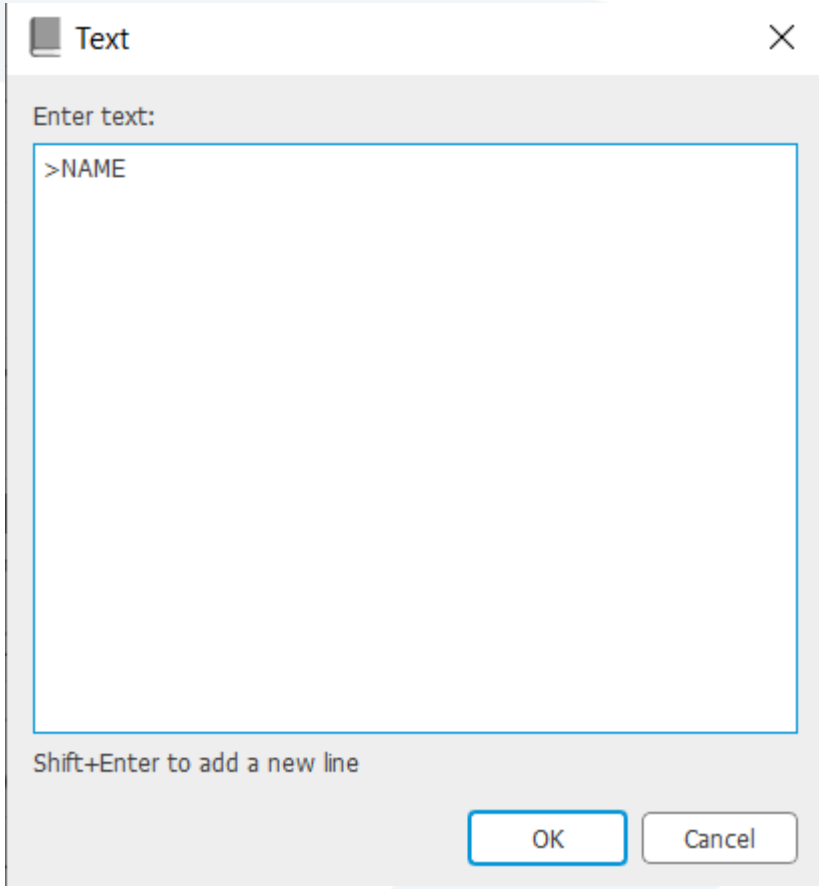
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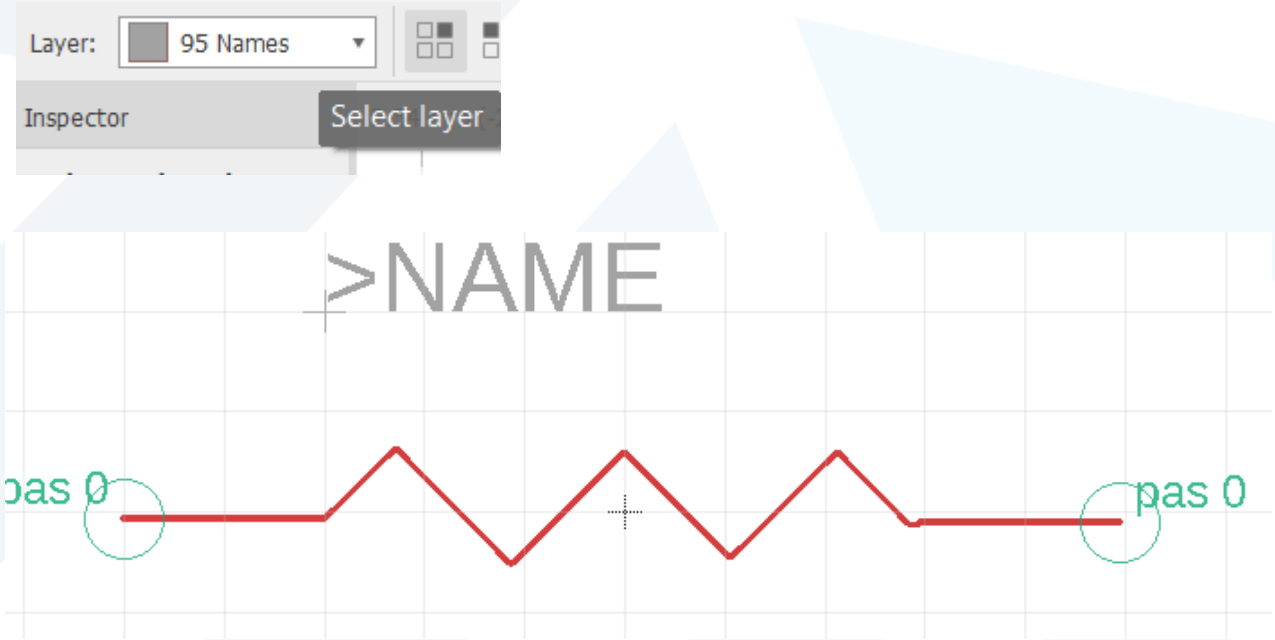
Shift+Enter to add a new line
OK
Cancel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95 Names
Inspector
Select layer
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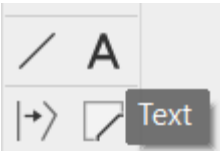
pas 0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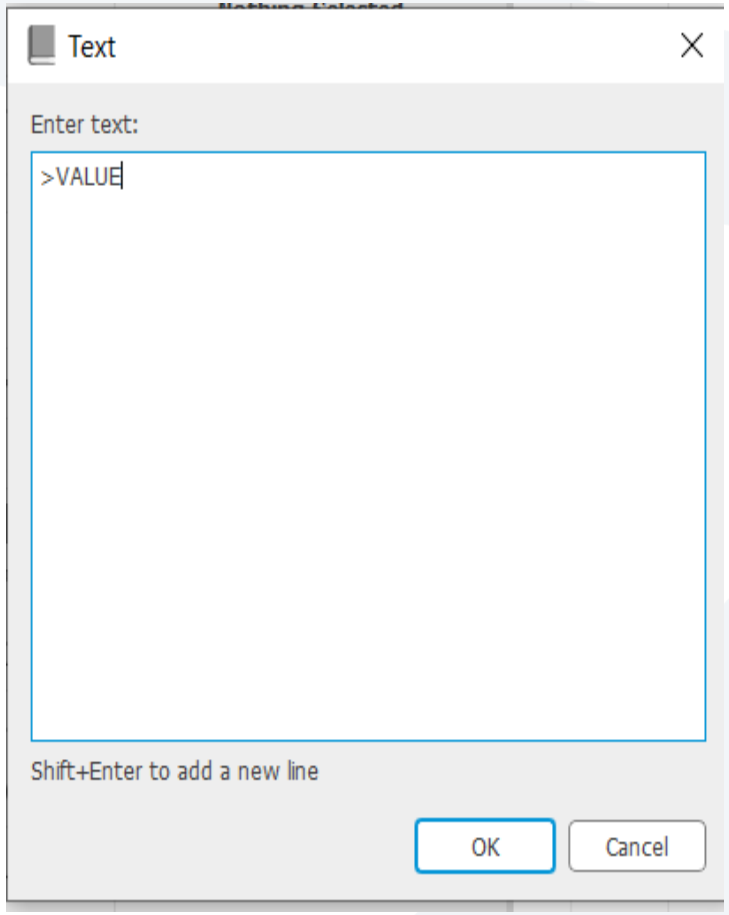
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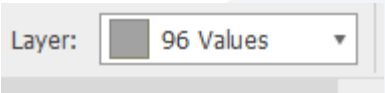
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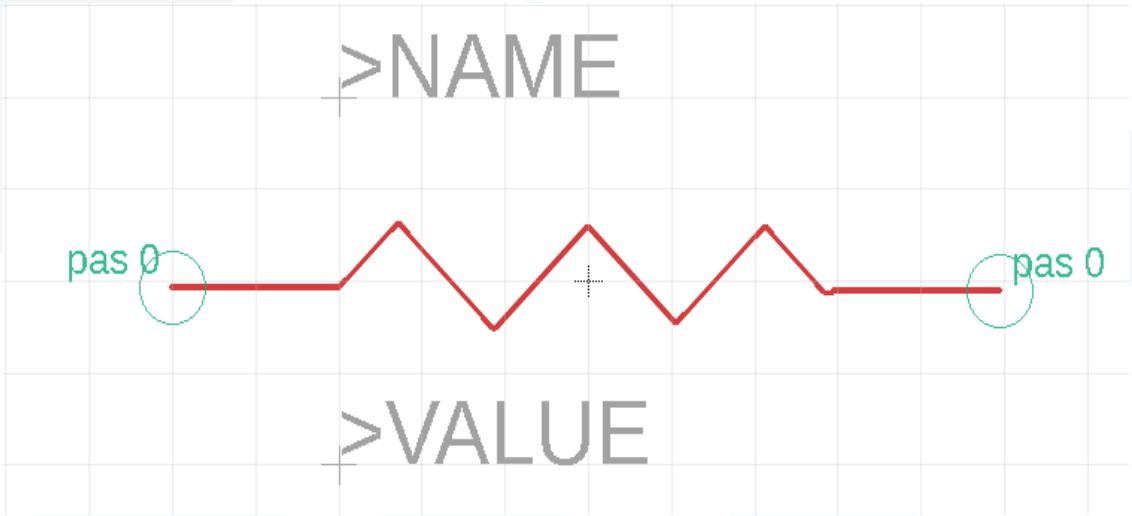
96 Values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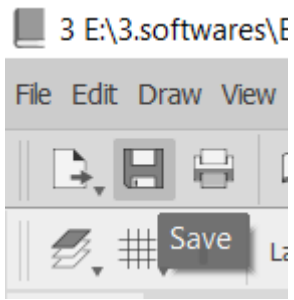
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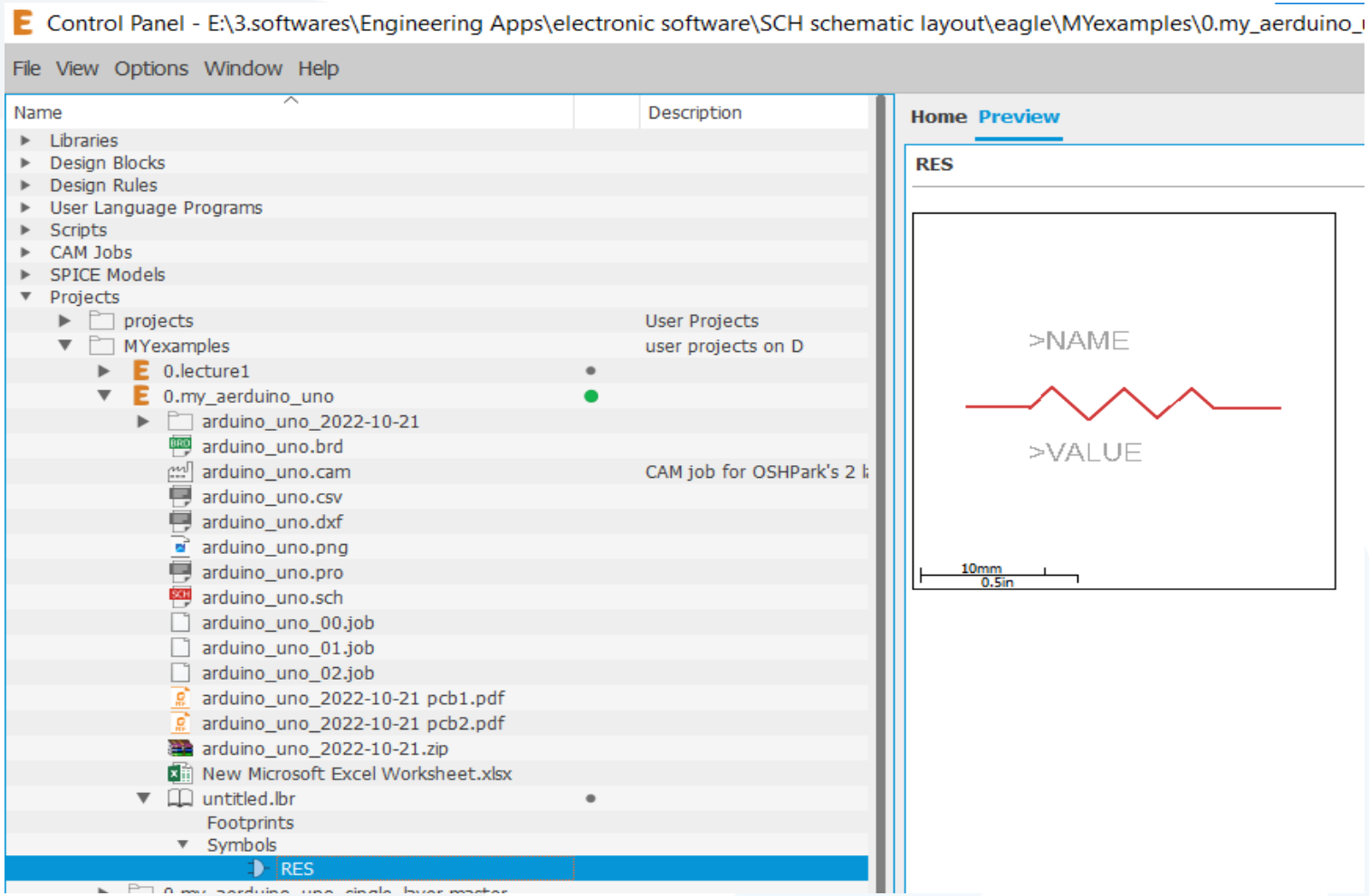
File Edit Draw View
Save


Control Panel - E:\3.softwares\Engineering Apps\electronic software\SCH schematic layout\eagle\MYexamples\0.my_aerduino_
File View Options Window Help
Name
Description
Libraries
Design Blocks
Design Rules
User Language Programs
Scripts
CAM Jobs
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arduino_uno.pro
arduino_uno.sch
arduino_uno_00.job
arduino_uno_01.job
arduino_uno_02.job
arduino_uno_2022-10-21 pcb1.pdf
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Preview
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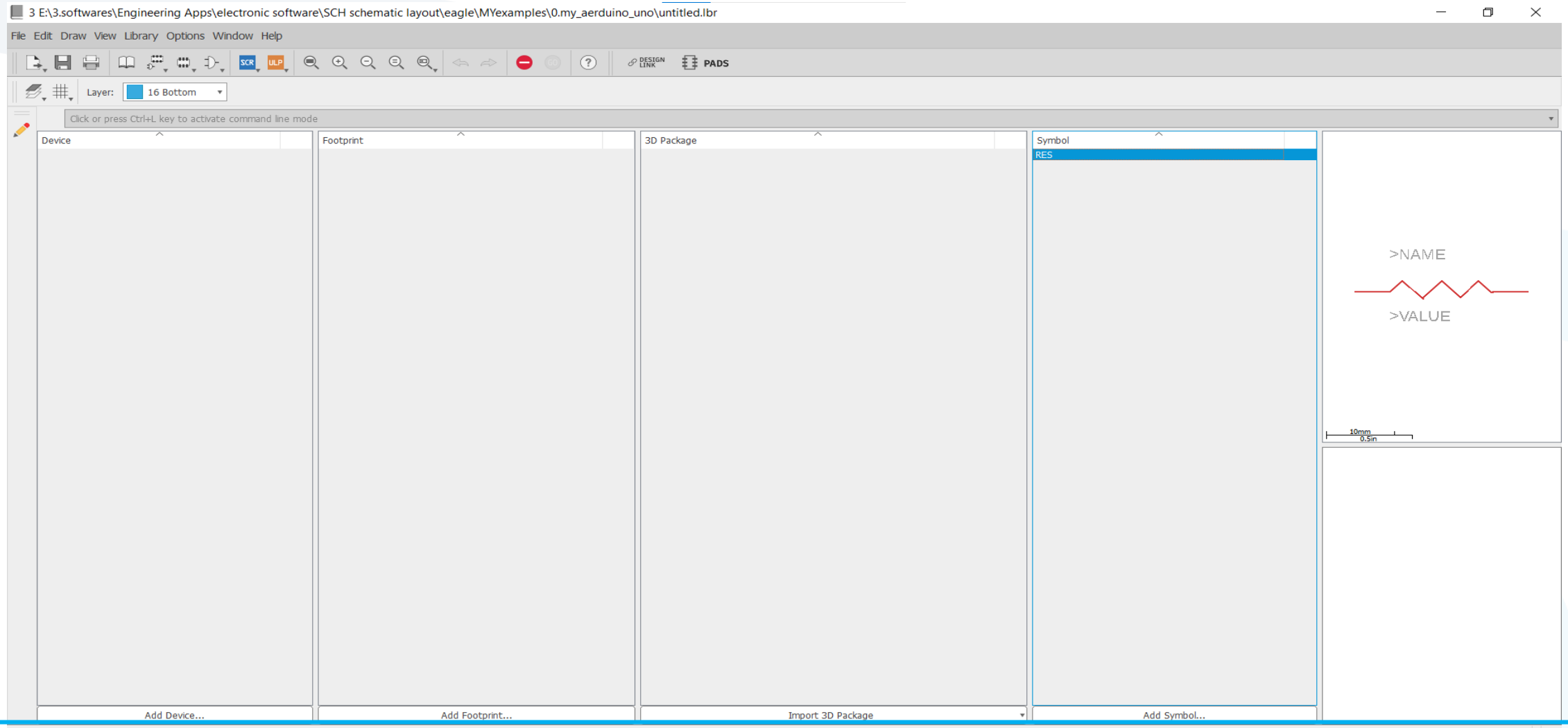
>VALUE
10mm
0.5in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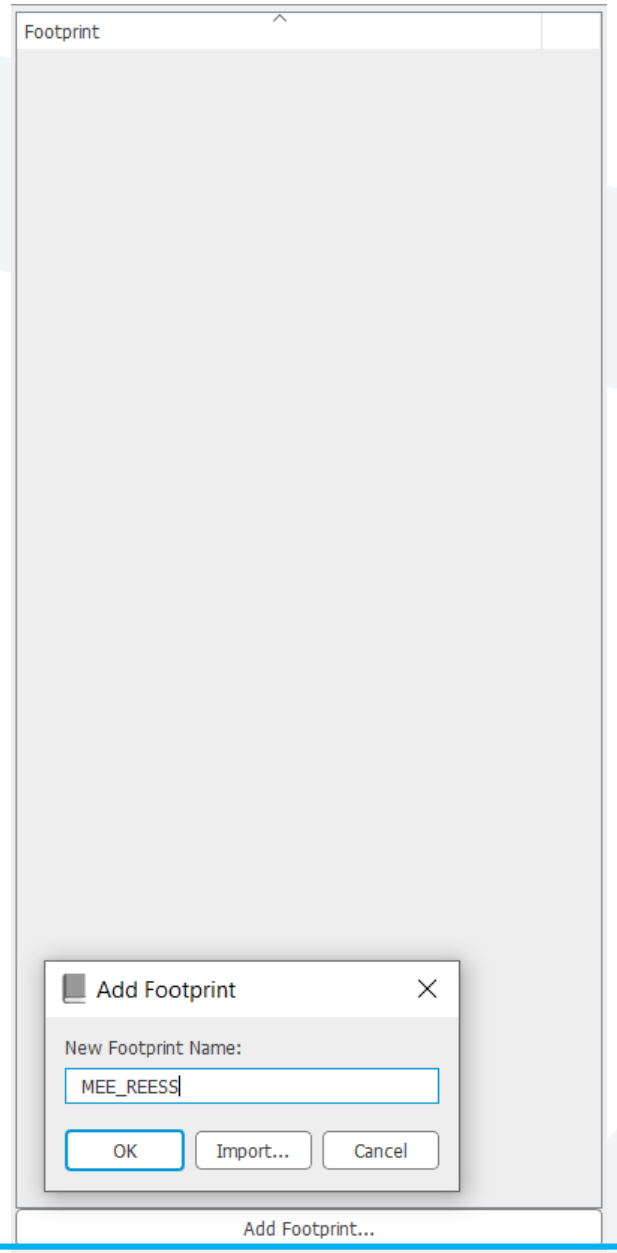
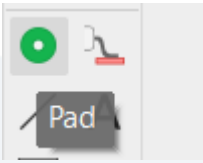
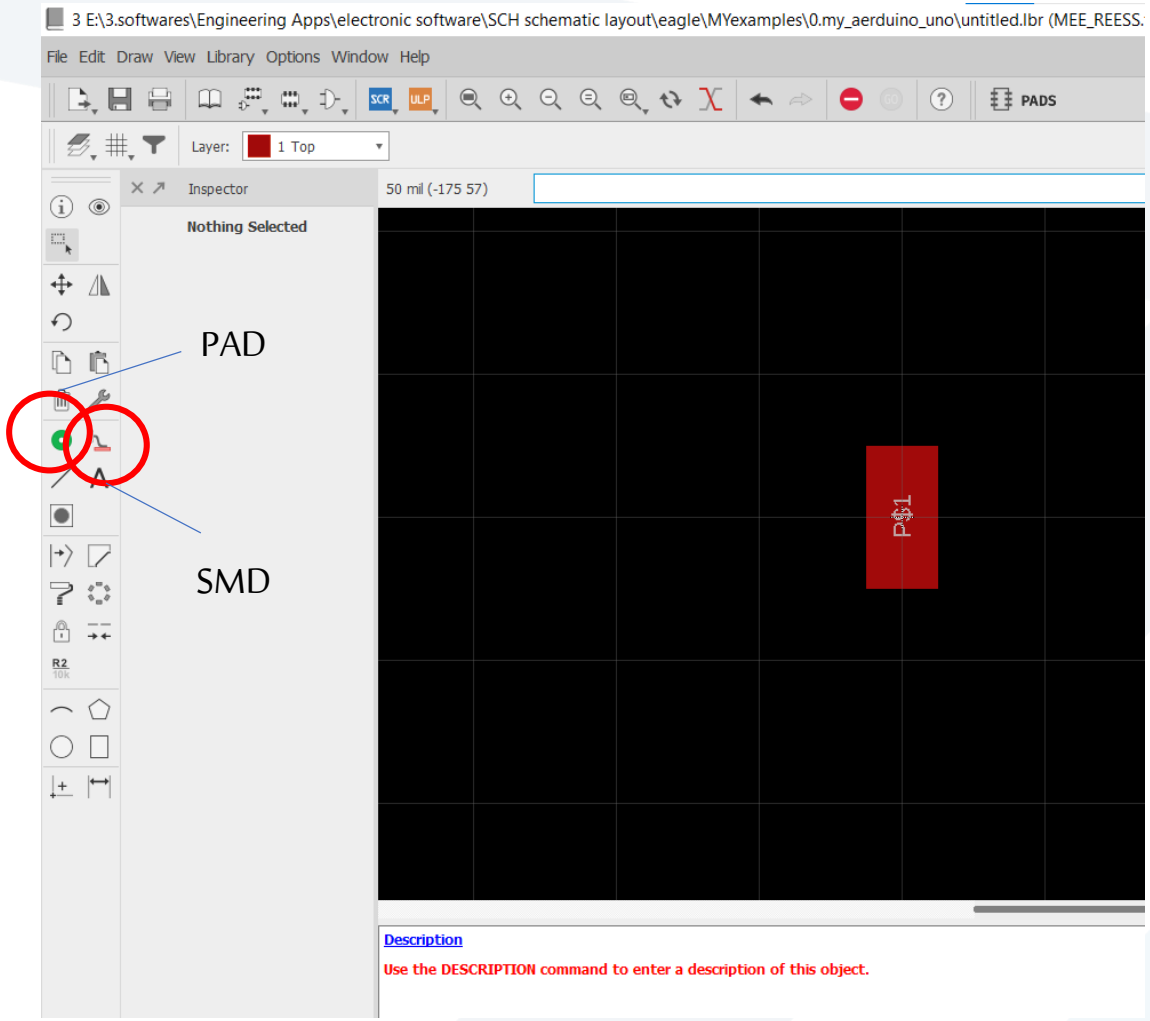
File Edit Draw View Library Options Window Help
PADS
Layer: 16 Bottom
Click or press Ctrl+L key to activate command line mode
Device
Footprint
3D Package
Symbol
RES
>NAME
>VALUE
Add Device...
Add Footprint...
Import 3D Package
Add Symbol...



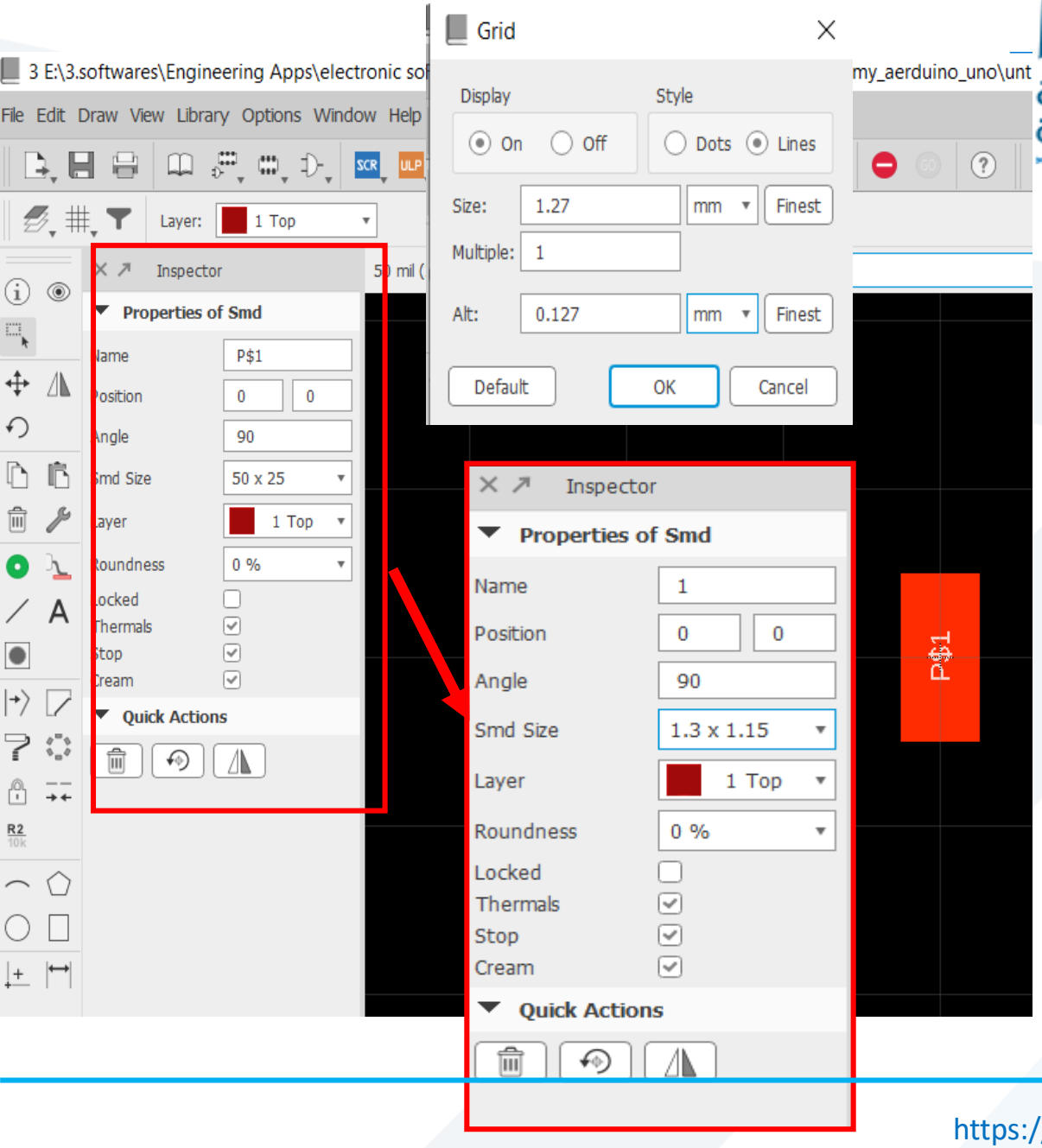
click ok

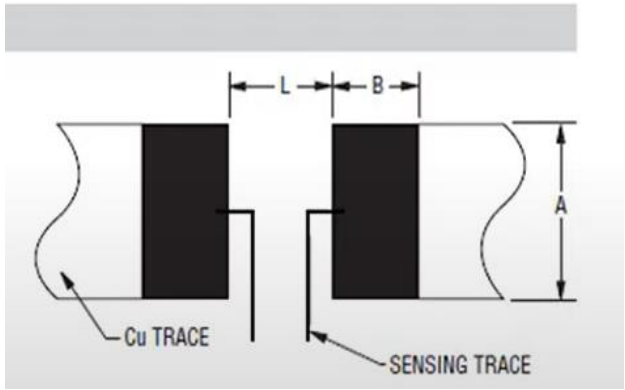
then a warning message will appear . JUST CLICK OK





rotate it by right click then place it in the origin



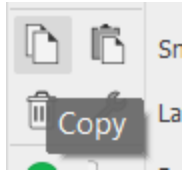


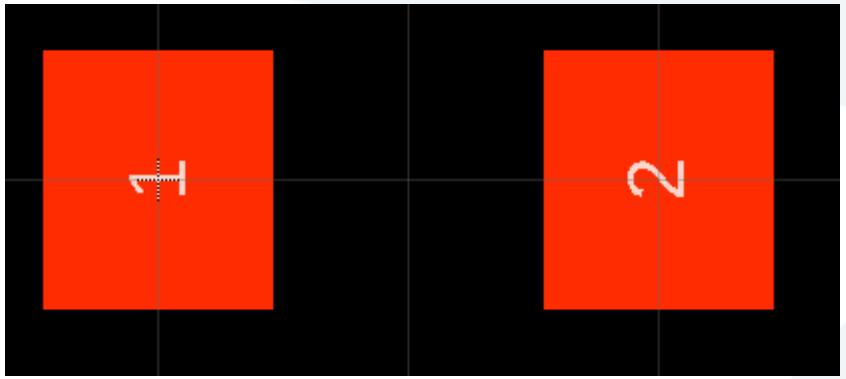
Recommended Solder Pad Layout

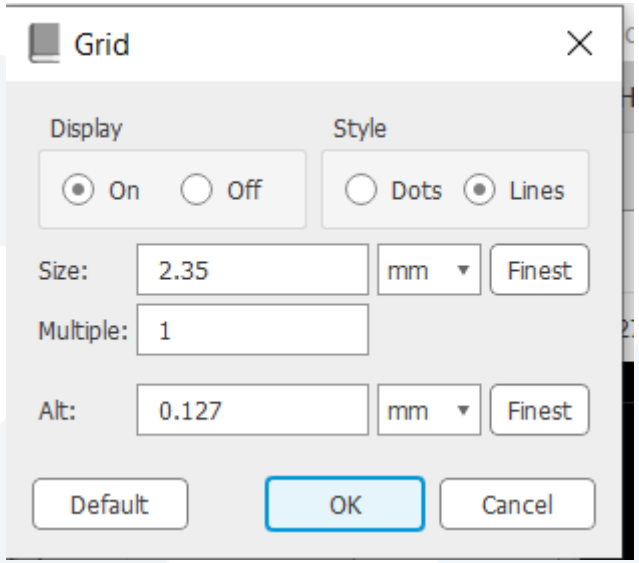
Model	A	B	L
CRM0805	1.3 (0.051)	1.15 (0.045)	1.2 (0.047)

double click on smd to show the left window

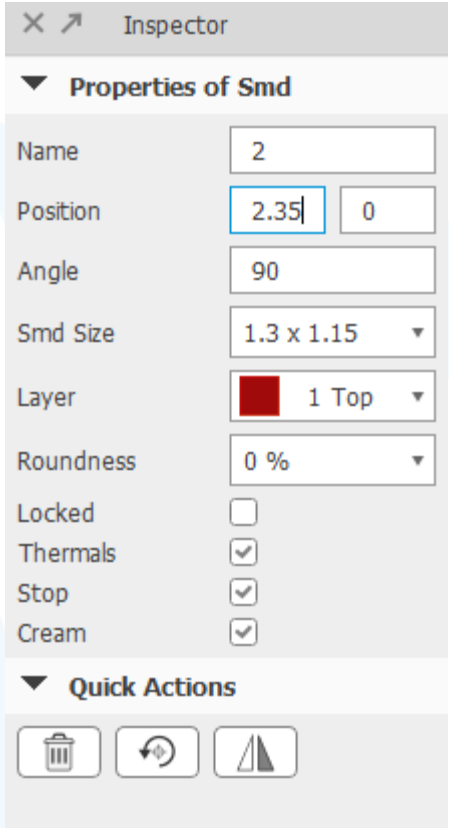
distance between the centers is B+L=2.35



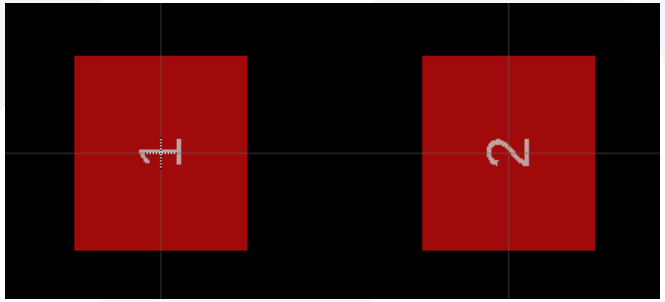


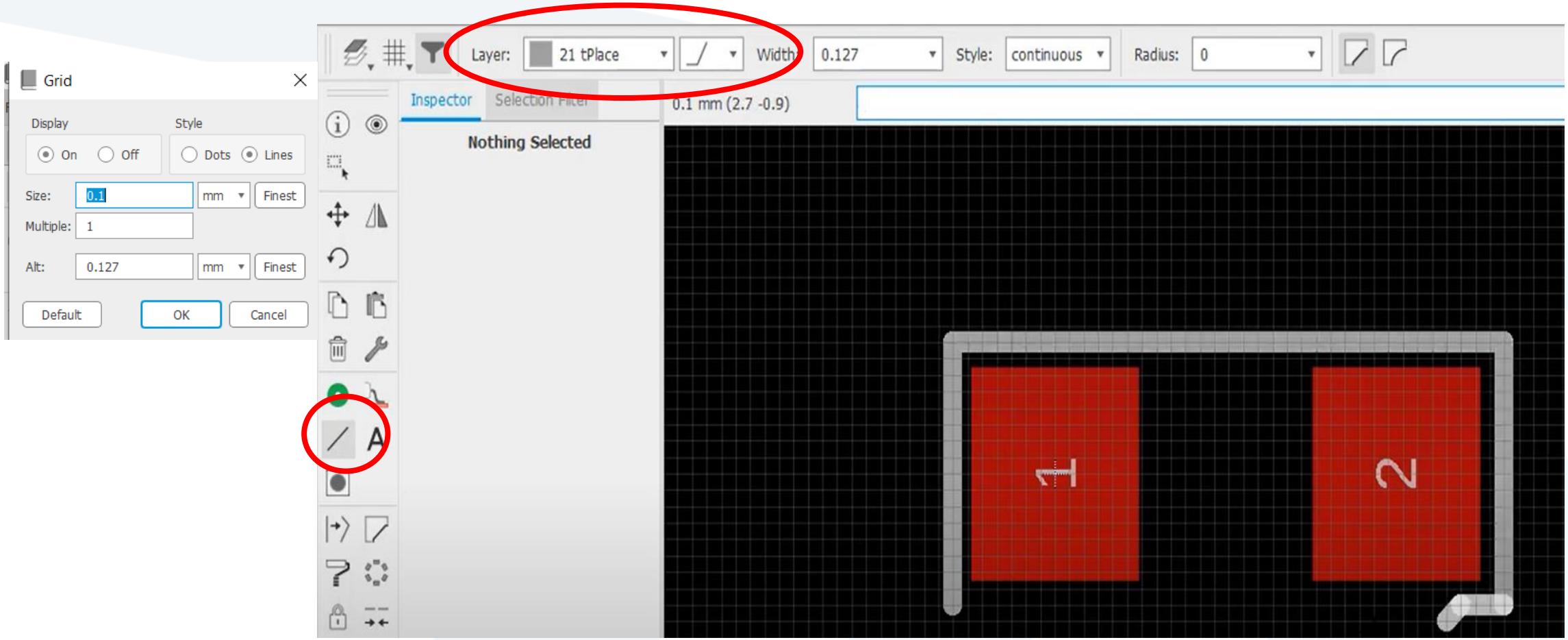


or



move 2 to the next center of the grid




Grid
Display
Style
On
Off
Dots
Lines
Size:
0.1
mm
Finest
Multiple:
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Alt:
0.127
mm
Finest
Default
OK
Cancel
Layer:
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Width:
0.127
Style:
continuous
Radius:
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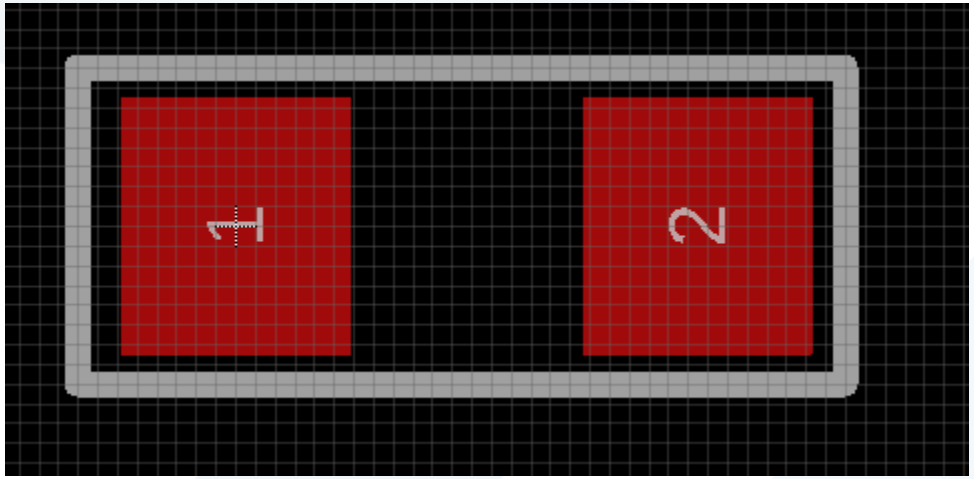
Inspector
Selection Filter
Nothing Selected
0.1 mm (2.7 -0.9)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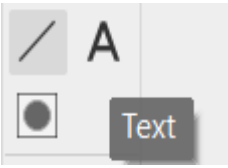
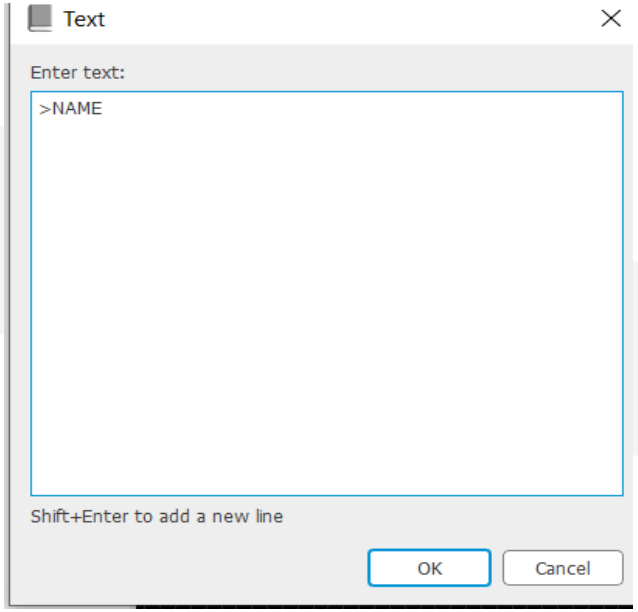
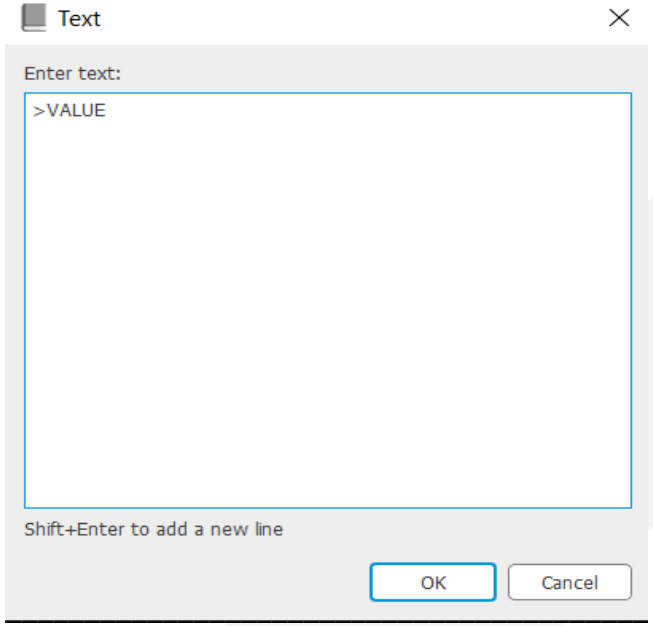
2


A
Text


Text
Enter text:
>NAME
Shift+Enter to add a new line
OK
Cancel


Layer:
25 tNames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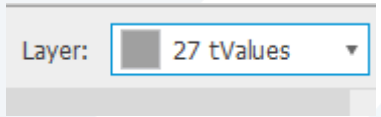
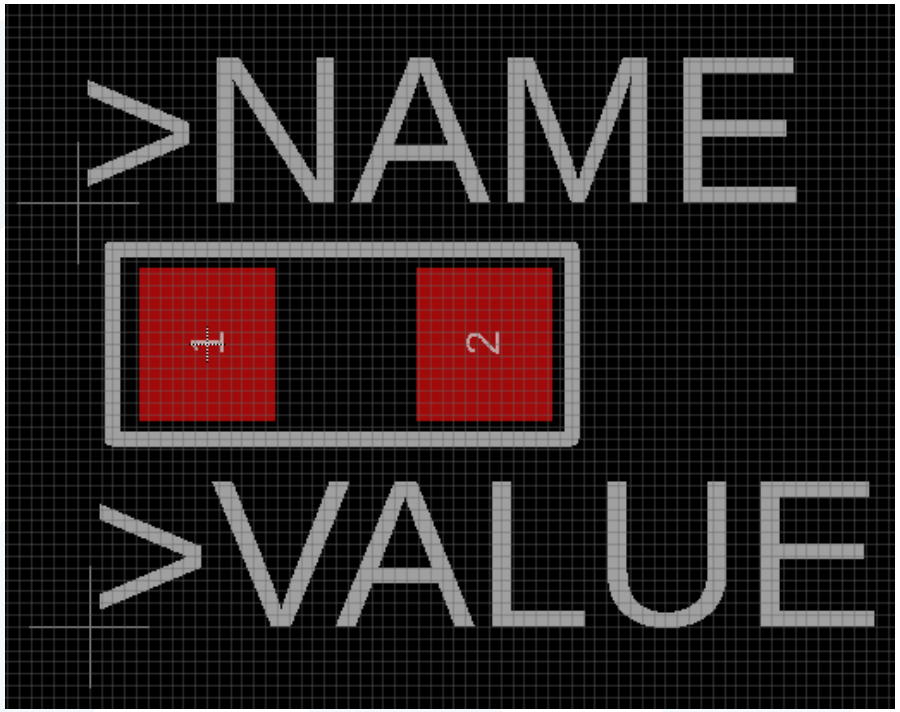
Enter text:
>VALUE
Shift+Enter to add a new line
OK
Cancel


Layer:
27 tValues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2
>VALUE

Control Panel - E:\3.softwares\Engineering Apps\electronic software\SCH schematic layout\eagle\MYexamples\0.my_aerduino_uno

File View Options Window Help

Name	Description
Libraries	
Design Blocks	
Design Rules	
User Language Programs	
Scripts	
CAM Jobs	
SPICE Models	
Projects	
projects	User Projects
MYexamples	user projects on D
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arduino_uno.dxf	
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arduino_uno.sch	
arduino_uno_00.job	
arduino_uno_01.job	
arduino_uno_02.job	
arduino_uno_2022-10-21 pcb1.pdf	
arduino_uno_2022-10-21 pcb2.pdf	
arduino_uno_2022-10-21.zip	
New Microsoft Excel Worksheet.xlsx	
untitled.lbr	
MYYYYRESISTOR	
Footprints	
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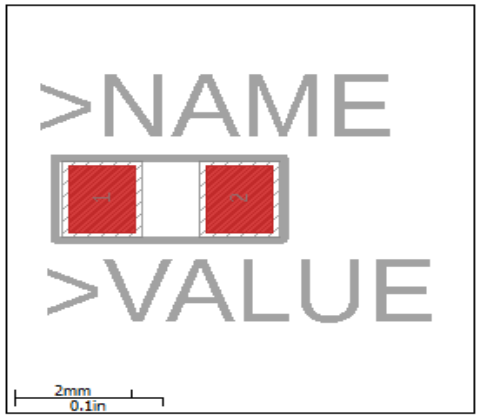
Symbols	
RES	

Home Preview

MEE_REESS



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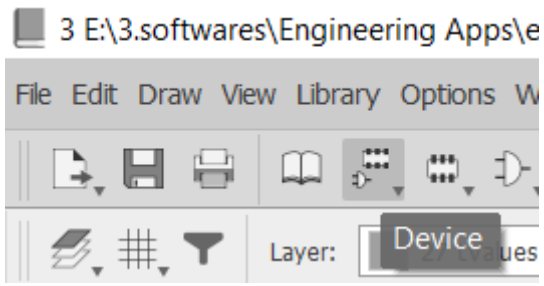
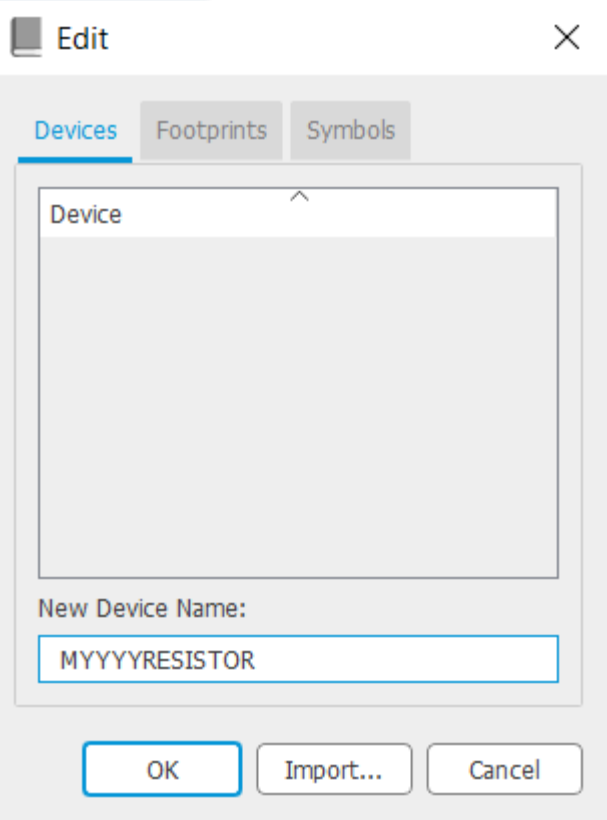
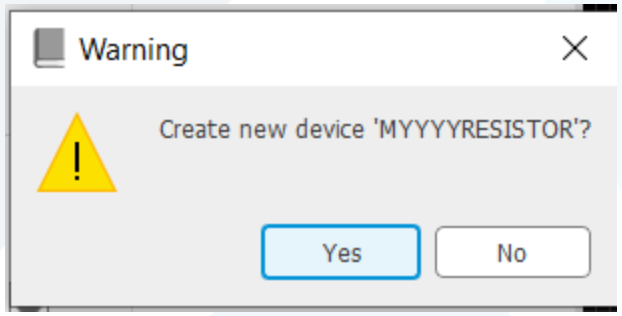
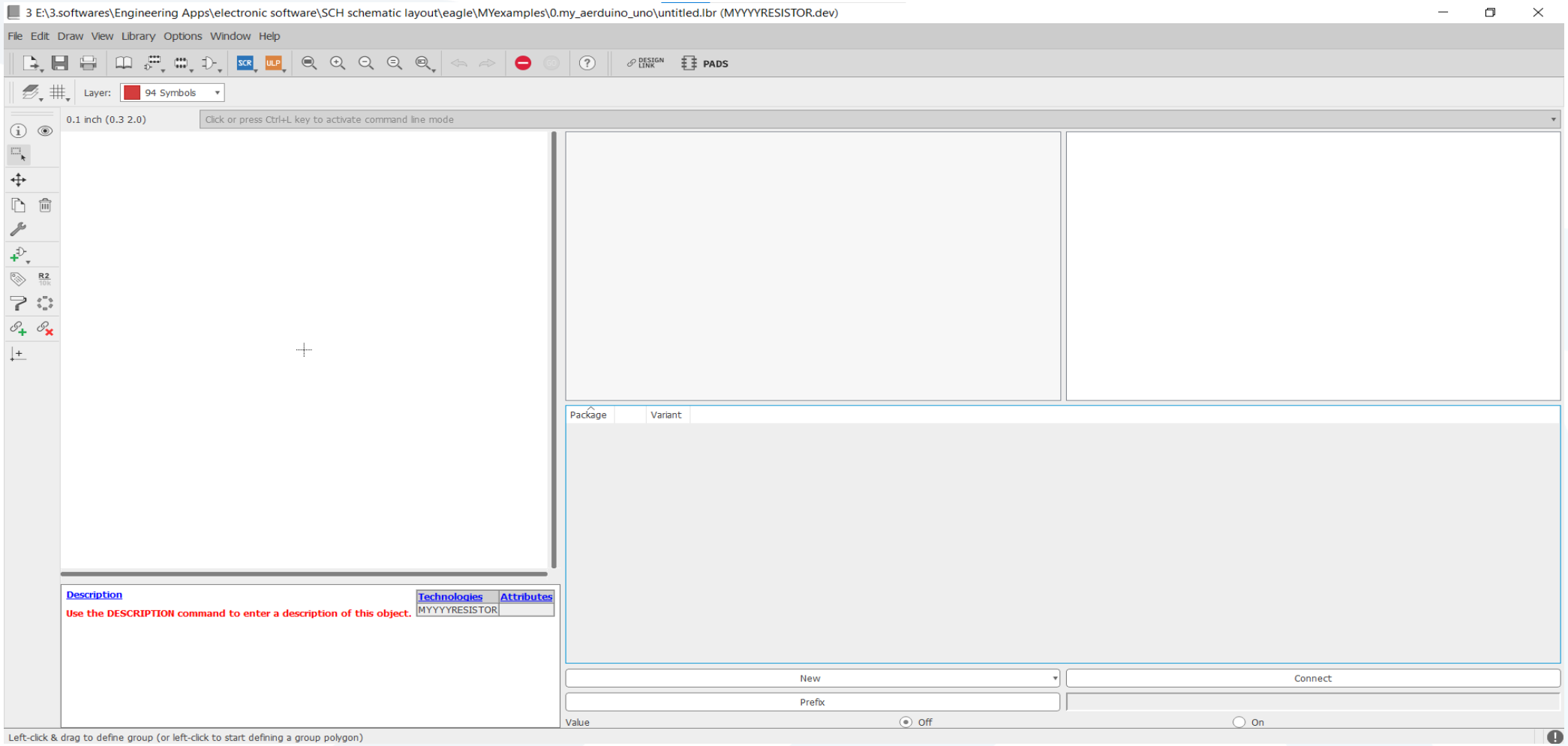
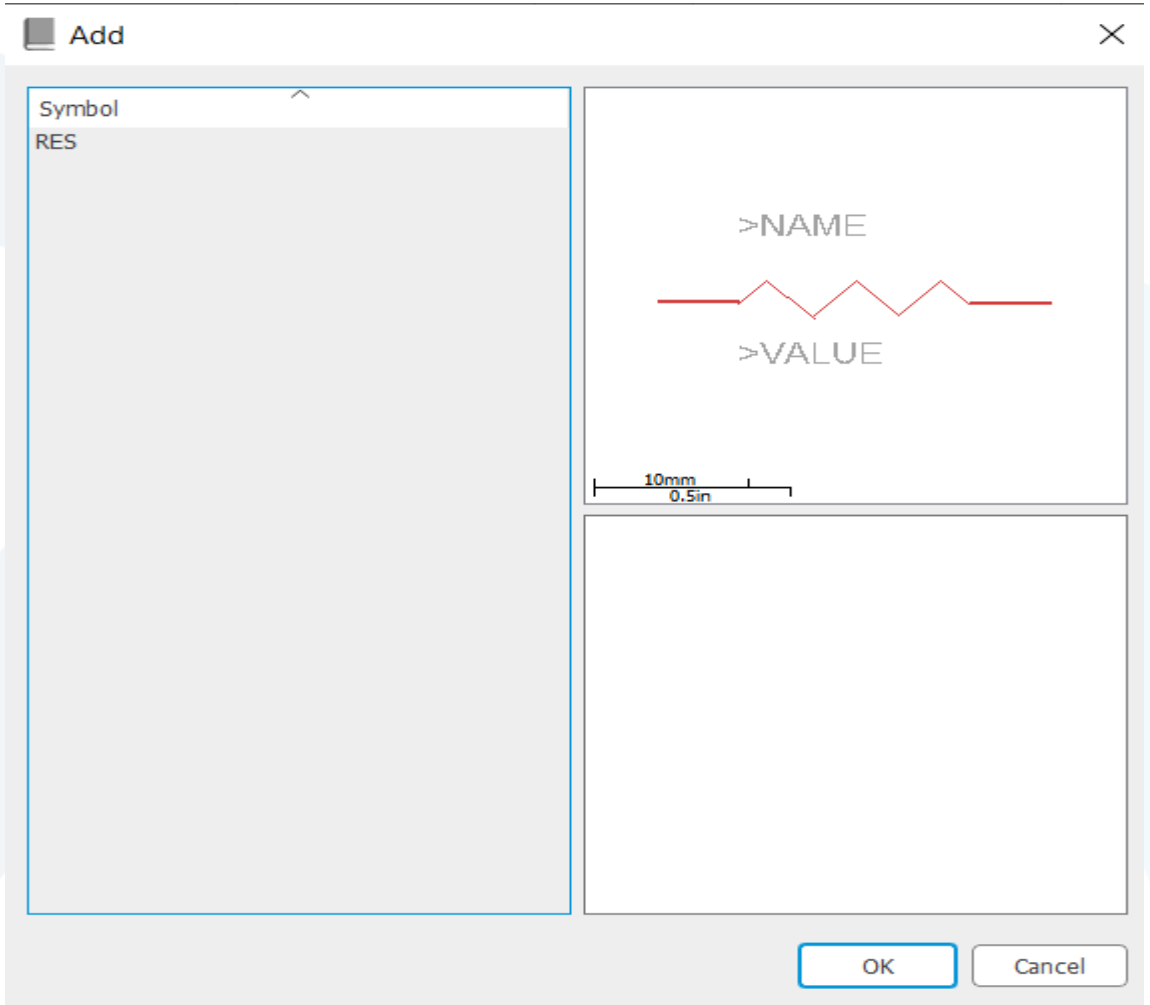

3 E:\3.softwares\Engineering Apps\e
File Edit Draw View Library Options W
Layer:
Device

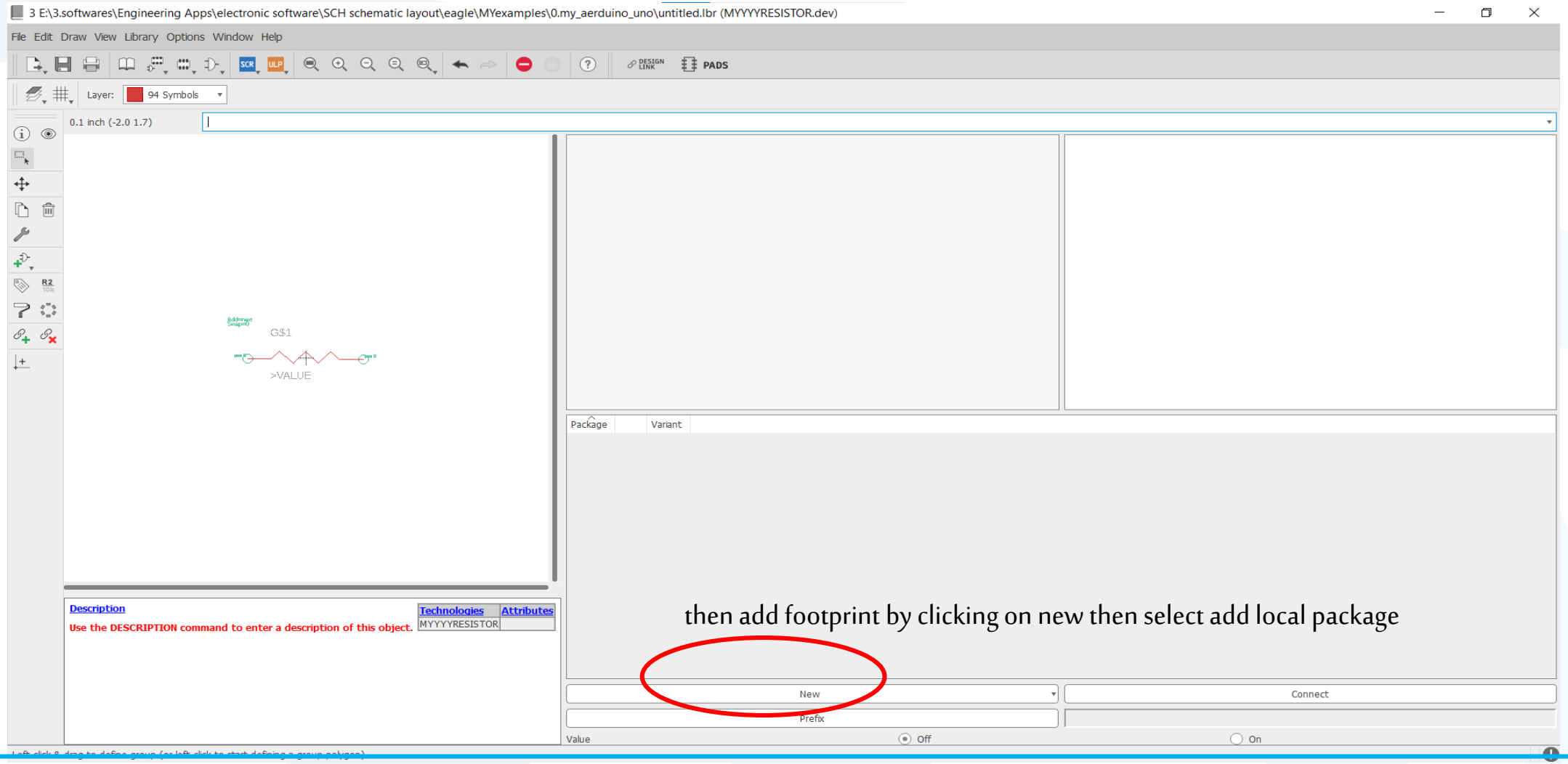

Edit
Devices
Footprints
Symbols
Device
New Device Name:
MYYYYRESISTOR
OK
Import...
Cancel


Warning
Create new device 'MYYYYRESISTOR'?
Yes
No

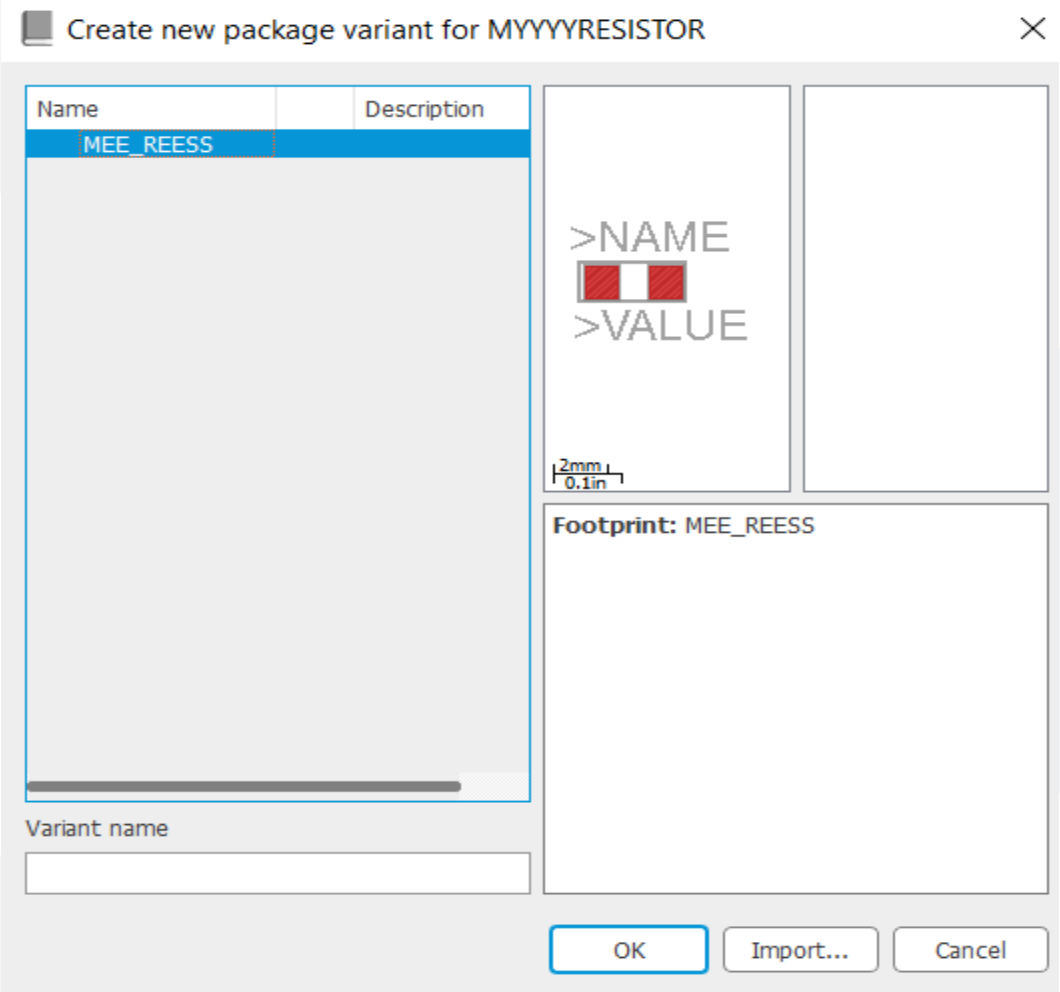

3 E:\3.softwares\Engineering Apps\electronic software\SCH schematic layout\eagle\MYexamples\0.my_aerduino_uno\untitled.lbr (MYYYYRESISTOR.dev)
File Edit Draw View Library Options Window Help
PADS
Layer: 94 Symbols
0.1 inch (0.3 2.0)
Click or press Ctrl+L key to activate command line mode
Package
Variant
Description
Use the DESCRIPTION command to enter a description of this object.
Technologies
Attributes
MYYYYRESISTOR
New
Connect
Prefix
Value
Off
On
Left-click & drag to define group (or left-click to start defining a group polygon)

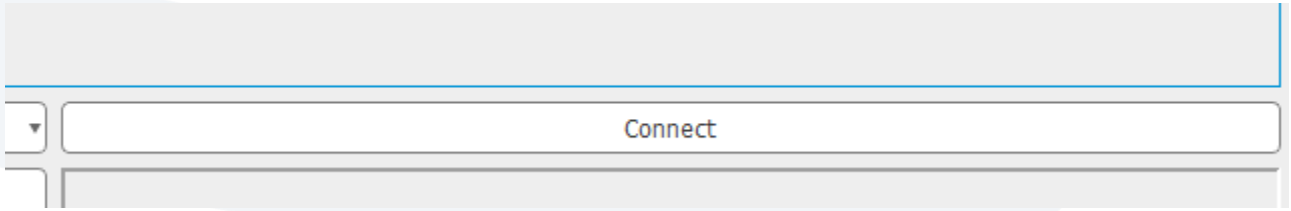

Add Part

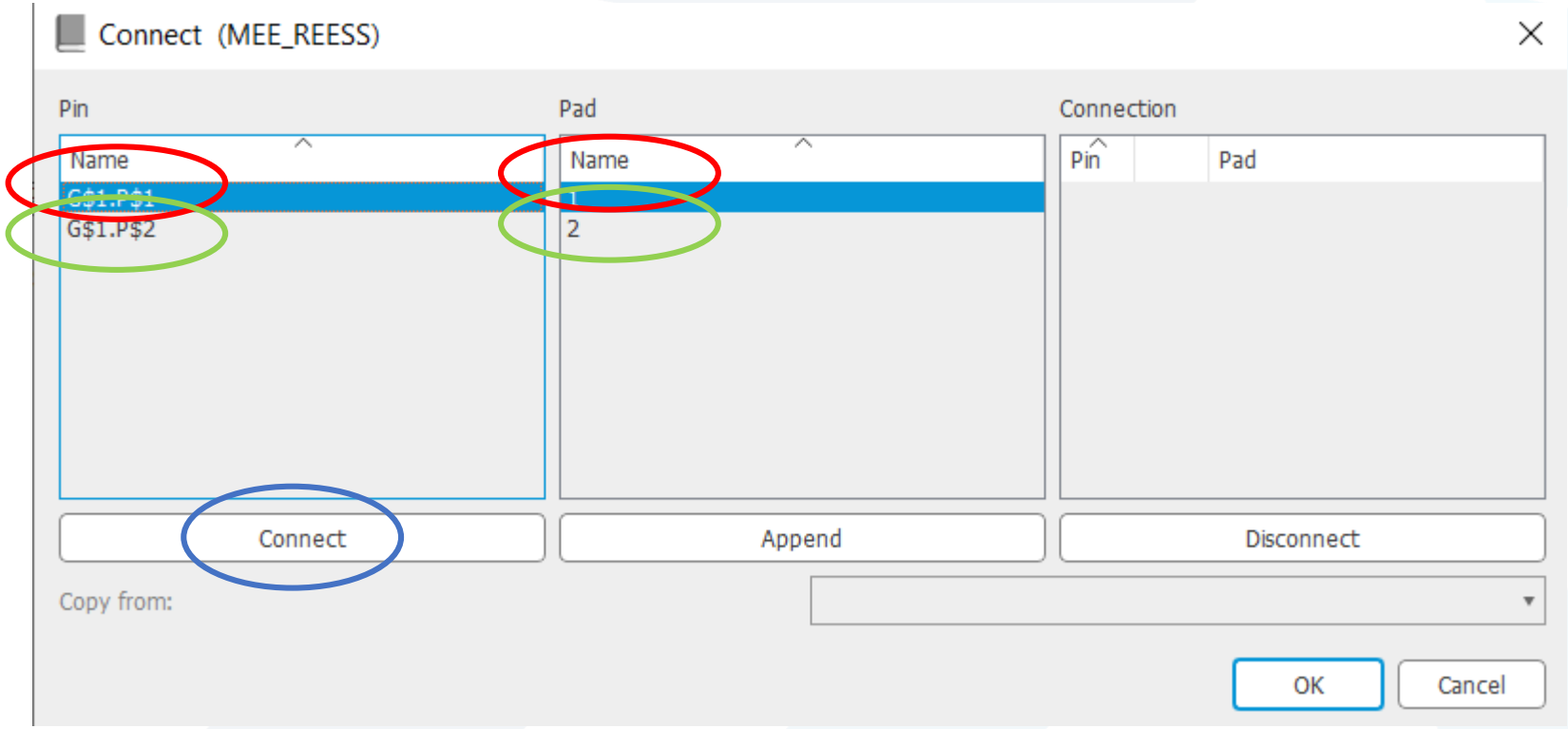

Add
Symbol
RES
>NAME
>VALUE
10mm
0.5in
OK
Cancel

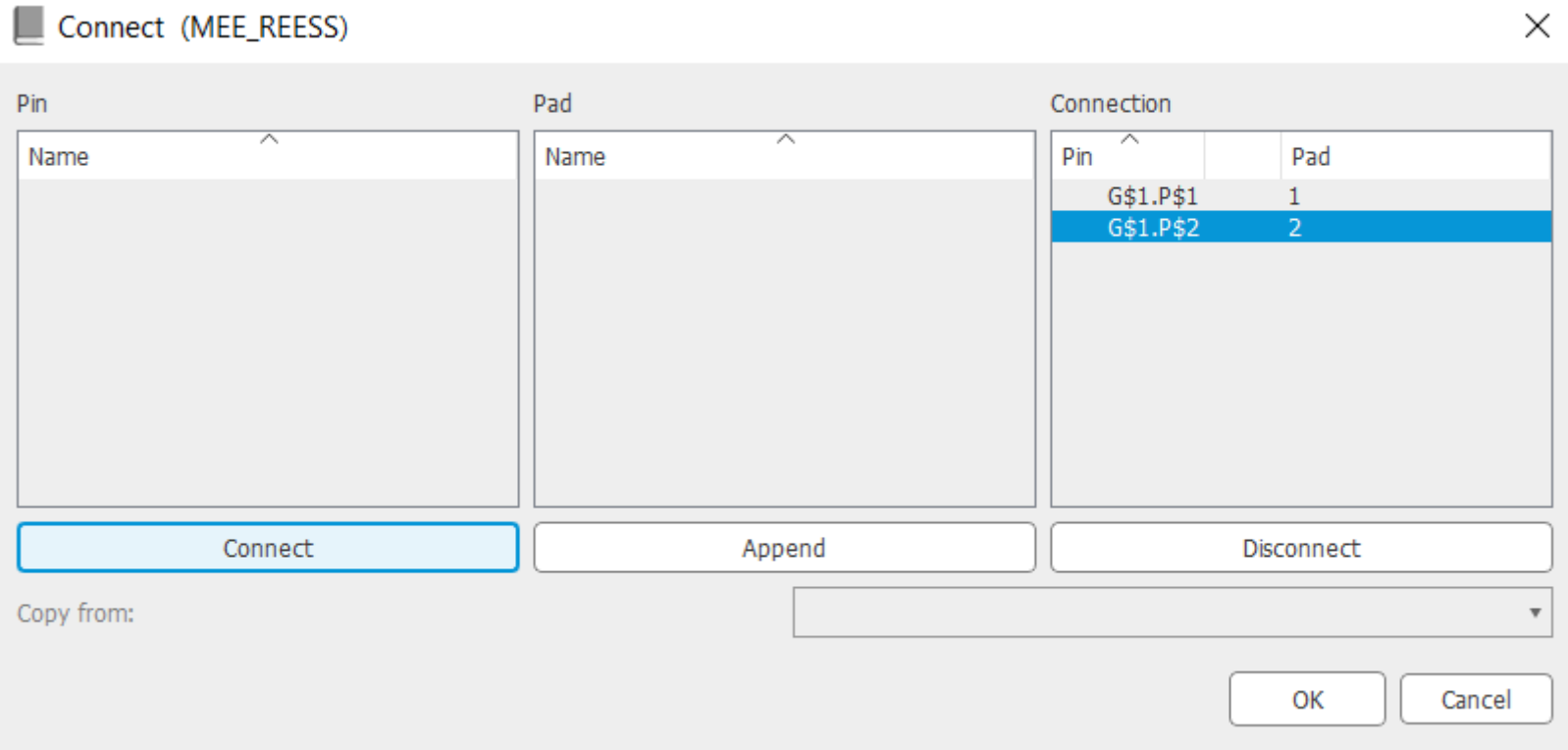


then add footprint by clicking on new then select add local package


Create new package variant for MYYYYRESISTOR
Name
Description
MEE_REESS
>NAME
>VALUE
2mm
0.1in
Footprint: MEE_REESS
Variant name
OK
Import...
Cancel


Connect


Connect (MEE_REESS)
Pin
Pad
Connection
Name
G$1.P$1
G$1.P$2
Name
1
2
Pin
Pad
Connect
Append
Disconnect
Copy from:
OK
Cancel


Connect (MEE_REESS)
Pin
Name
Pad
Name
Connection
Pin
Pad
G$1.P$1
1
G$1.P$2
2
Connect
Append
Disconnect
Copy from:
OK
Cancel

Control Panel - E:\3.softwares\Engineering Apps\electronic software\SCH schematic layout\eagle\MYexamples\0.my_aerduino_uno

File View Options Window Help

Name	Description
Libraries	
Design Blocks	
Design Rules	
User Language Programs	
Scripts	
CAM Jobs	
SPICE Models	
Projects	
projects	User Projects
MYexamples	user projects on D
0.lecture1	
0.my_aerduino_uno	
arduino_uno_2022-10-21	
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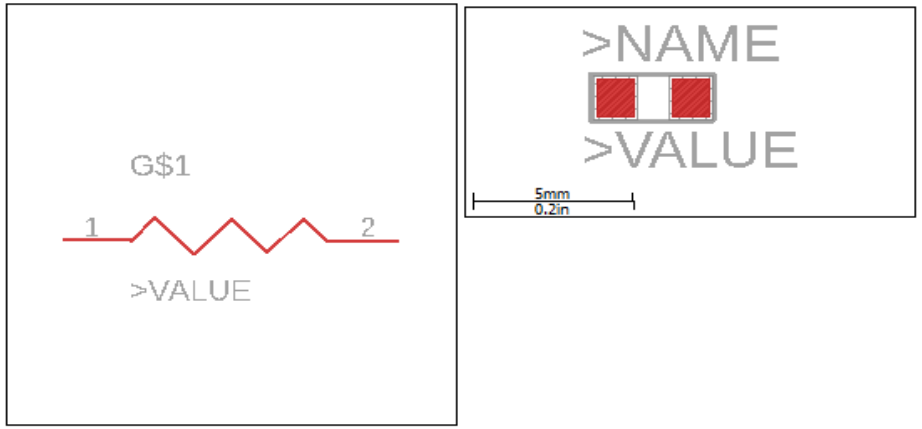
arduino_uno.csv	
arduino_uno.dxf	
arduino_uno.png	
arduino_uno.pro	
arduino_uno.sch	
arduino_uno_00.job	
arduino_uno_01.job	
arduino_uno_02.job	
arduino_uno_2022-10-21 pcb1.pdf	
arduino_uno_2022-10-21 pcb2.pdf	
arduino_uno_2022-10-21.zip	
New Microsoft Excel Worksheet.xlsx	
untitled.lbr	
MYYYYRESISTOR	
Footprints	
MEE_REESS	
Symbols	
RES	

Home Preview

MYYYYRESISTOR



نهاية المحاضرة