

# How to use the Open Roberta Lab Example: Bionic Flower



### Step 1: Install Open Roberta Connector

- Go to: https://stem.festo.com/us/en/products-courses/coding/open-roberta-lab/index.html
- Go to GitHub: https://github.com/OpenRoberta/openroberta-connector/releases/tag/v1.4.0
- Download and install the following file:

• Download Open Roberta Bionic Flower Courseware (pdf)

Home Integrative STEM Approach Products & Courses Blog Contact us	
Home > Products & Courses > Coding > Open Roberta Lab - Coding	
Open Roberta Lab - easy start with coding!	
Open Roberta is a virtual programming interface for robots, robot learning kits and micro programming activities in a web-based open source platform.	ocontrollers. It's easy to get started with
First steps in using Open Roberta Lab with our Bionic Flower	Open Roberta Lab https://lab.open-roberta.org/
To program the Bionic Flower in class, you need at least one Bionic Flower, at least one laptop or mobile device and WIFI. For classroom use, the teacher needs the "Open Roberta Connector (.zip)".	Bionic Flower
An easy introduction to programming with Open Roberta Lab you can find here:	Show details
Download the introduction (pdf)	
View our introduction video on YouTube	

## GitHub

v1.4.0: integration Rob3rta + FestoBioni	cFlower (Latest	Compare
ⓓ bjost2s released this 28 Mar 2022 🔊 v1.4.0 ↔ 3037e8c		
new installer workflow		
▼ Assets 6		
OpenRobertaConnectorLinux-v1.4.0.tar.gz	14.7 MB	28 Mar 2022
OpenRobertaConnectorLinux-v1.4.0.tar.gz OpenRobertaConnectorMacOSX-v1.4.0.pkg	14.7 MB 14.3 MB	28 Mar 202 28 Mar 202
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OpenRobertaConnectorMacOSX-v1.4.0.pkg	14.3 MB	
OpenRobertaConnectorMacOSX-v1.4.0.pkg OpenRobertaConnectorSetupDE-v1.4.0.msi	14.3 MB 25.6 MB	28 Mar 2022 28 Mar 2022



# Step 2: Setup Open Roberta Connector

- Open the Roberta Connector.
- Go to: File -> Device ID Editor

Open Roberta Connector – – X  File Info  Device ID Editor  Etit  Available robots:	
Connect the robot with the pc using the	
Connect us room with the perioding the USB cable. USB cable. USB cable. USB cable.	

• Add the connected device corresponding to the port of your Bionic Flower.

Device ID Editor     >       Identify your device by physically connecting and oncenting all Once identified, and of the list using the plus button and select a device type.     >       Connected devices:     1     10C4     Product ID     Port     •       1     10C4     EA60     COM33     •     •		
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Device ID Editor			×
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Connected devices	8		
No. Vendor ID	Product ID	Port	
1 10C4	EA60	COM33	+
Registered devices	S: Product ID	Device Type	
Vendor ID			-

- Declare the new device as a Bionic Flower robot.
- Save and close.

• In case no new robot appears, it means that the driver to recognize the Bionic Flower is not yet installed. To do so, go to the following website: CP210x USB to UART Bridge VCP Drivers - Silicon Labs (silabs.com). Next, in downloads, download the zip file according to your operating system. Then extract this zip file to your documents. Finally, you can check if your Bionic Flower is recognized by your Device Manager.

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File Action View Help	
V 🖁 DESKTOP-D53QTPG	
> 🖬 Audio inputs and outputs	
> 🍃 Batteries	
> 🖇 Bluetooth	
> @ Cameras	
> Computer	
> 🖶 DellInstrumentation	
> _ Disk drives	
> 🕁 Display adapters	
> PVD/CD-ROM drives	
> 🞽 Firmware	
> 🙀 Human Interface Devices	
> 🚠 Imaging devices	
> 🥅 Keyboards	
> III Mice and other pointing devices	
> 🧾 Monitors	
> 🚽 Network adapters	
V 📮 Ports (COM & LPT)	
Silicon Labs CP210x USB to UART Bridge (COM41)	
> 🚍 Print queues	
> Processors	
> P Security devices	
> 📲 Software components	
> Software devices	
Sound, video and game controllers	
<ul> <li>Storage controllers</li> </ul>	

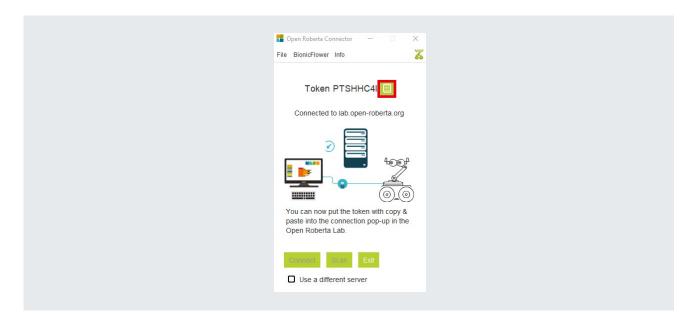


#### Step 3: Connect the Bionic Flower to the Connector

- Connect the Bionic Flower to your computer with the USB cable.
- Click on the "Connect" button to connect the Bionic Flower.

Open Roberta Connector – O X File BionicFlower Info
Found robot: BionicFlower
Image: Connect a connect the connect the connect a context and the context and th

• Copy the code.



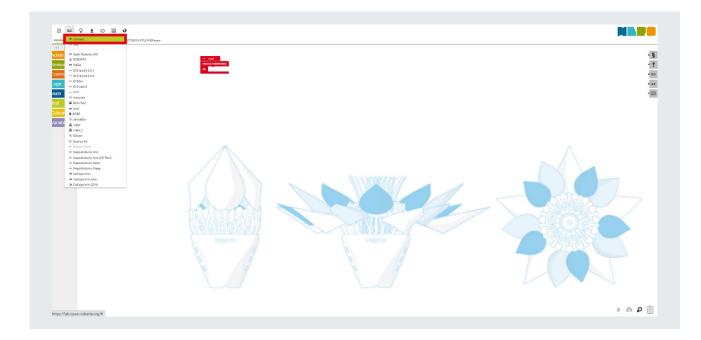


# Step 4: Setup the environment of the Open Roberta lab

- Go to: https://lab.open-roberta.org/
- Select the Bionic Flower in the menu.

Impressum Datenschutzerklärung	em!	Wähle dein System!	Wä	Release 4.2.12
i ⇒	<b>∞</b> Nepo4Arduino	i Bionic Flower	Bionics Kit	¢
	fe? serer ausführlichen Hilfe	Brauchst du Hilfe?	Br	Möchtest du gleich loslegen,
Open Robert	ren wir dir alles ganz u, von der Bauanleitung u häufig gestellten	erklären w e Tour genau, vor	Starte die Tour	weißt aber nicht genau wie? Wir zeigen dir die ersten Schritte in einer interaktiven Anleitung.

• Go to the B4E menu and click to connect the Bionic Flower.





• Paste the code to connect the Bionic Flower and click on "Ok" button.

connect Value	×
PTSHHC41      OK Cancel	Do you need help?

# Step 5: Upload a code to the Bionic Flower

• Click on the arrow at the right bottom

PROGRAM NEPOprog ROBOT CONFI	GURATION FESTOBIONICFLOWERbasis		
Action			
Sensors		+ start	
Control		repeat indefinitely	
_ogic		do turn LED R on colour C	
Math		3 wait ms C 500 turn LED R off	
Text	$\wedge$	∑ wait ms C 500	
Colours			
	Walk Walk	THE REAL PROPERTY OF	

The B4E logo blink to indicate that the code is uploading on the Bionic Flower.

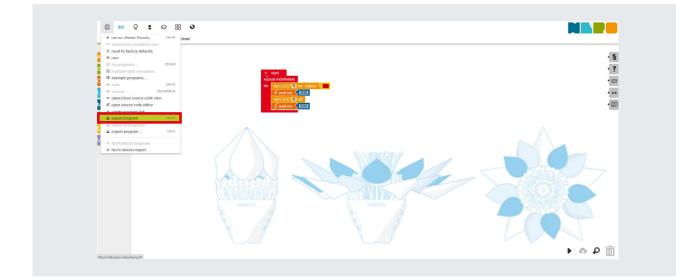


#### Import or export a code:

It is not possible to record a code. For this you need to export it and after import it to work again with.

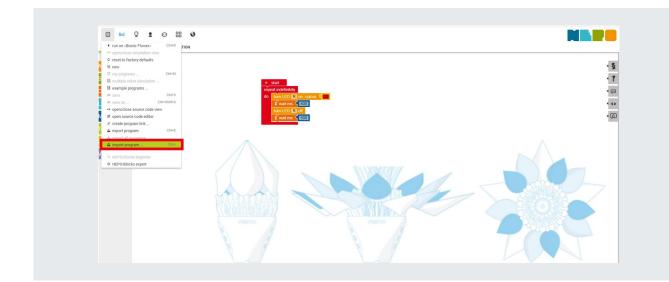
#### Export a code:

- Go to the first menu, and click on the export program.
- A file with format .xml is created on your download folder.



## Import a code:

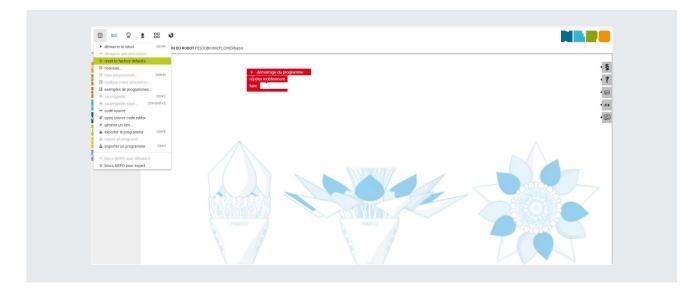
- Go to the first menu, and click on the import program.
- Your code appears on the Open Roberta interface.





## Reset the code for the Bionic Flower:

If you want to reset the Bionic Flower with the initial code, go to the first menu and click on the "reset to factory defaults".



## Exit:

Before exit Open Roberta, think to import your code if you want to use it for the next time. To exit the Open Roberta, on the Open Roberta Connector disconnect the Flower and disconnect your flower to your computer.