

Agrosta®Roxanne has been designed in 2023, upgraded in 2026 in order to provide a simple and efficient colorimeter (spectrophotometer) coming with machine learning



Roxanne comes with :

- The measurement unit itself
- 2 softwares for Windows on a USB stick
- Usb cable

The softwares can be downloaded here as well (same as on USB stick) :

[HTTPS://www.agrosta.org/roxanne.zip](https://www.agrosta.org/roxanne.zip)



1/ SETUP

- Connect the USB stick :

NOM	DATE	TYPE	TAILLE
NEURAL_FILES_EXAMPLES	08/07/2026 17:38	Dossier de fichiers	
DRIVER.EXE	09/05/2026 10:46	Application	830 Ko
TEACH-Setup.exe	08/07/2026 17:08	Application	72 625 Ko
USE-Setup.exe	08/07/2026 16:45	Application	121 751 Ko

- Then double click on **DRIVER** in order to install the driver
- Connect the Roxanne colorimeter to your computer using the Usb cable provided
- It should make a small sound as driver recognizes the device

2 executable files are available, corresponding to the 2 softwares (You can make a shortcut on your desktop if you want) :

- The first file, USE is the software for using the device, either with or without using machine learning (Roxanne can be used as a simple colorimeter)
- The second file, TEACH the software for teaching the device (Associating each sample category with a number) and creating a neural file (The neural file can be opened in the “use” software afterwards)

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Software TEACH :

- After having connected the device to your computer,
- Double click on TEACH-Setup
- The software starts immediately after setup

Software USE :

- After having connected the device to your computer,
- Close the TEACH software if open
- Double click on the USE-Setup file
- The software starts immediately after setup
- Please note that the 2 software cannot be opened simultaneously

2/ CALIBRATION

- The calibration has been made in our factory using a pure white CERTIFIED REFLECTANCE STANDARD from **labsphere** at a temperature of 20°C
- Please note that the cost of this standard is more than € 1500
- Thus it can be difficult to make the calibration in the same conditions at user location
- You can use any “pure white” sheet of paper in order to re-make the calibration if you want



3/ TEACHING SOFTWARE DETAILS

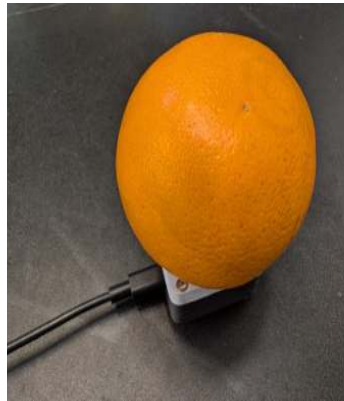
- Prepare your samples by category (Example with lemon hereafter, categories 1, 2 and 3)



- Connect your device to the computer, and start the TEACH software



- First fill the category corresponding to the sample you are going to measure
- Then place the sample on the sensor head



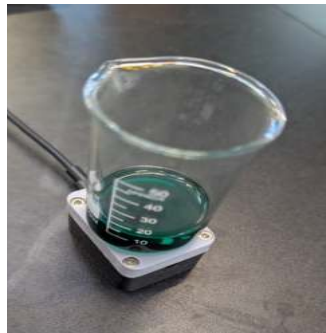
- Then press the “SPACE” key on your keyboard in order to launch the measurement
- The aim of this software is to generate a neural file that will store the teaching model
- The more samples you test for each category, the more your neural file will be accurate

After having tested all your samples, and covered each category several times, you can click on the button “Record Teaching File” and then give a name to the file to be created (Extension .lak to be used afterwards in the User software)

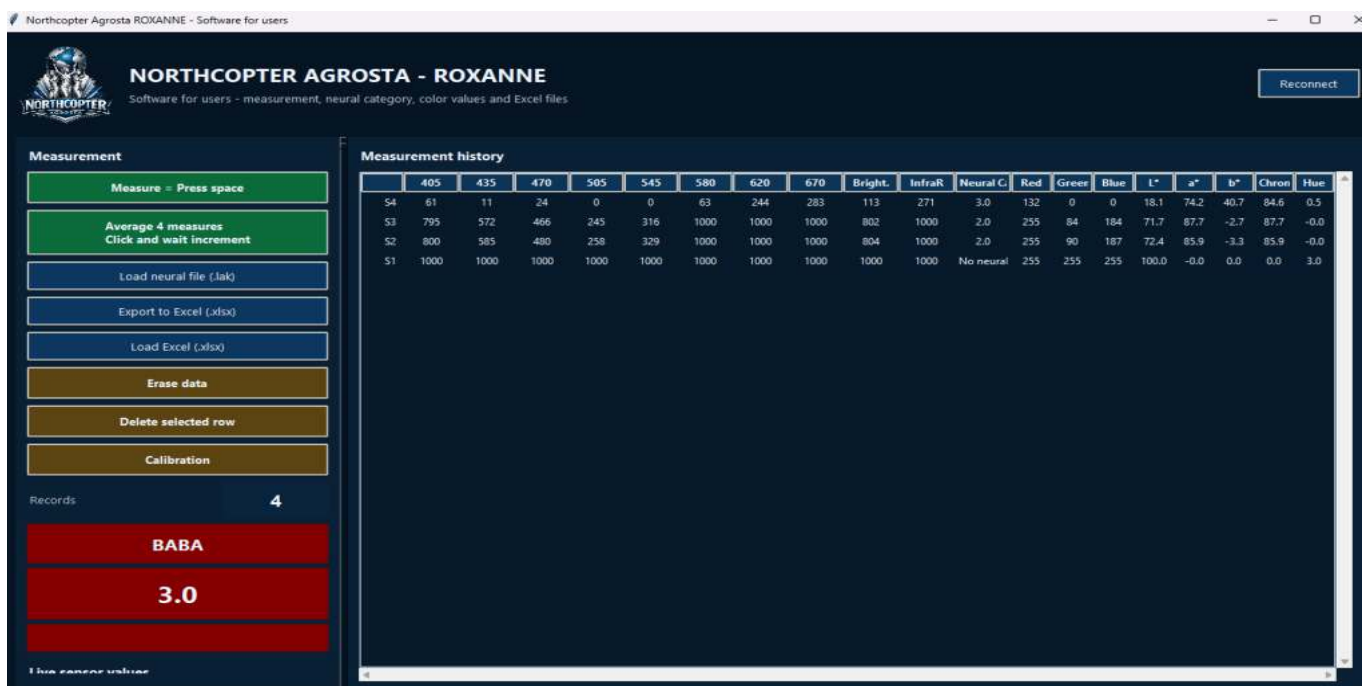
Alternatively, you can save the current teaching session as a *.roxlearn* file. This allows you to resume the learning process at a later time by loading the session again and continuing to add samples before creating the final *.lak* neural file. (New in 2026)

4/ "USE" SOFTWARE DETAILS

- Connect your device to the computer, and start the USE software
- You can load a neural file if you want your samples to be classified – If you don't, Roxanne will just be used as a simple colorimeter
- Then place the sample on the sensor head



- Then press the "SPACE" key on your keyboard in order to launch the measurement



	405	435	470	505	545	580	620	670	Bright.	InfraR	Neural C.	Red	Green	Blue	L*	a*	b*	Chron	Hue
S4	61	11	24	0	0	63	244	283	113	271	3.0	132	0	0	18.1	74.2	40.7	84.6	0.5
S3	795	572	466	245	316	1000	1000	1000	802	1000	2.0	255	84	184	71.7	87.7	-2.7	87.7	-0.0
S2	800	585	480	258	329	1000	1000	1000	804	1000	2.0	255	90	187	72.4	85.9	-3.3	85.9	-0.0
S1	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	No neural	255	255	255	100.0	-0.0	0.0	0.0	3.0

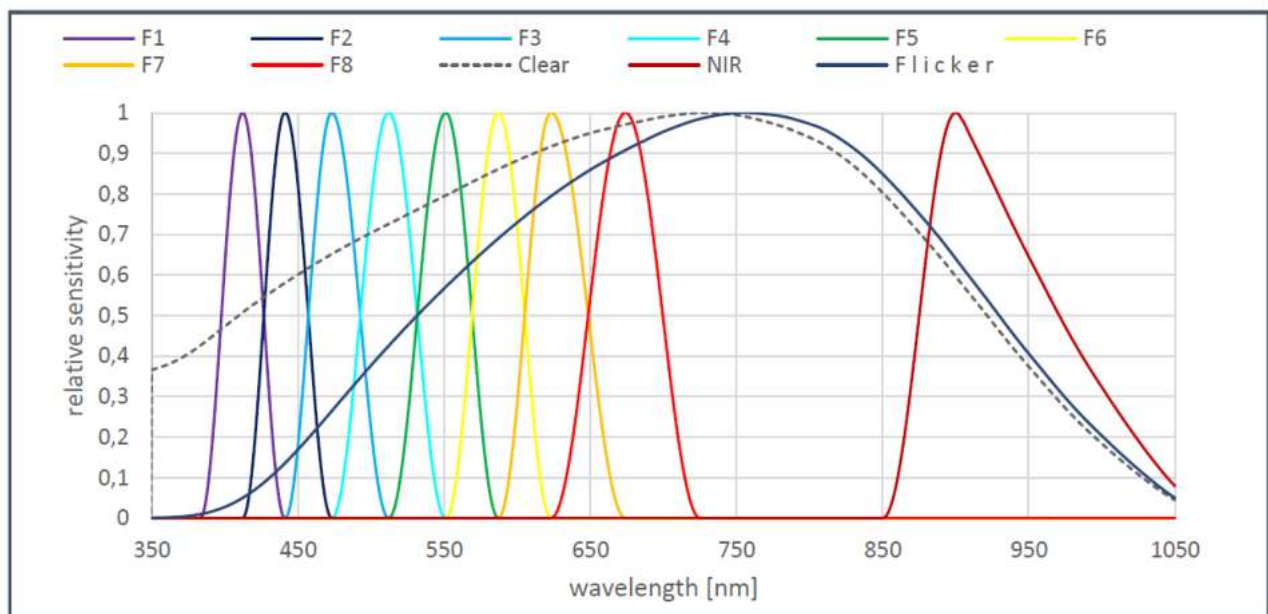
- Once you have finished to measure your samples, you can click on the button "Export to Excel" in order to save the data
- New in 2026 : you can re-load an excel file previously saved and continue the measurements

5/ SPECIFICATIONS

Agrosta®Roxanne is a spectrophotometer that measures the reflectance on a sample (between 0 and 1000 after calibration) for 9 different wavelengths

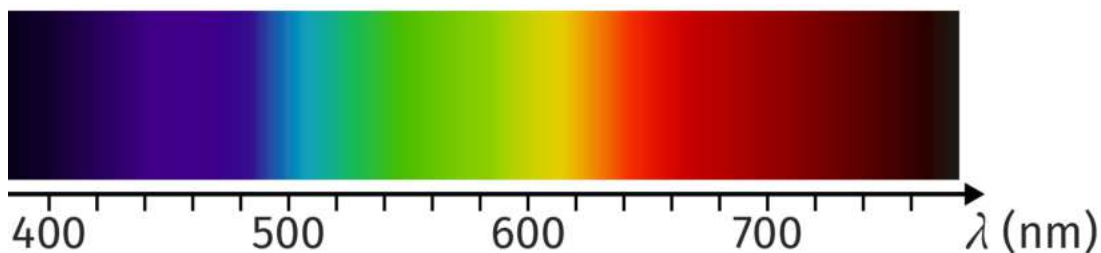
Those 9 wavelengths cover the full visible range as well as near Infrared

Normalized Spectral Responsivity



The accuracy on each wavelength for the visible range is $1/1000 = 0.1\%$, which is extremely good

The accuracy on Infrared is $10/1000 = 1\%$



The room temperature has an incidence on measurements – If the room temperature varies of more than 5°Celsius , re-make the calibration procedure using the small mirror provided



6/ SMART APP CONTROL (WINDOWS 11) – HOW TO DISABLE IF INSTALLED

If Windows blocks the Agrosta software, Smart App Control may be enabled. You can disable it by following the steps below.

1. Open Windows Settings (press Windows key + I).
2. Go to Privacy & Security.
3. Click Windows Security.
4. Click Open Windows Security.
5. Select App & Browser Control.
6. Click Smart App Control settings.
7. Select Off.

IMPORTANT:

- Once Smart App Control is turned off, it cannot be turned on again manually.
- To re-enable it, Windows usually requires a system reset or reinstallation.
- If the option is missing or greyed out, Smart App Control is already disabled.