

# **TUTORIAL N° 6**

## **LABSPEC TUTORIAL**



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This guide will take you through the steps of setting up LABSPEC (<http://www.horiba.com/scientific/products/raman-spectroscopy/software/> ) in connection to use your PIEZOCONCEPT device. We will not cover everything LABSPEC has to offer. We will focus only on how to configure LABSPEC in order to make it work with a PIEZOCONCEPT nanopositioner.

For more information on how to use all the function of LABSPEC, please to refer to HORIBA Jobin Yvon.

The LABSPEC has been developed around firmware developed by Physik Instrumente.

In September 2017, Piezoconcept decided to generate the exact same function as PI so that the Piezoconcept is now recognized like if it was a controller from PI, namely the E-725.

### **1. Downloading/installing LABSPEC**

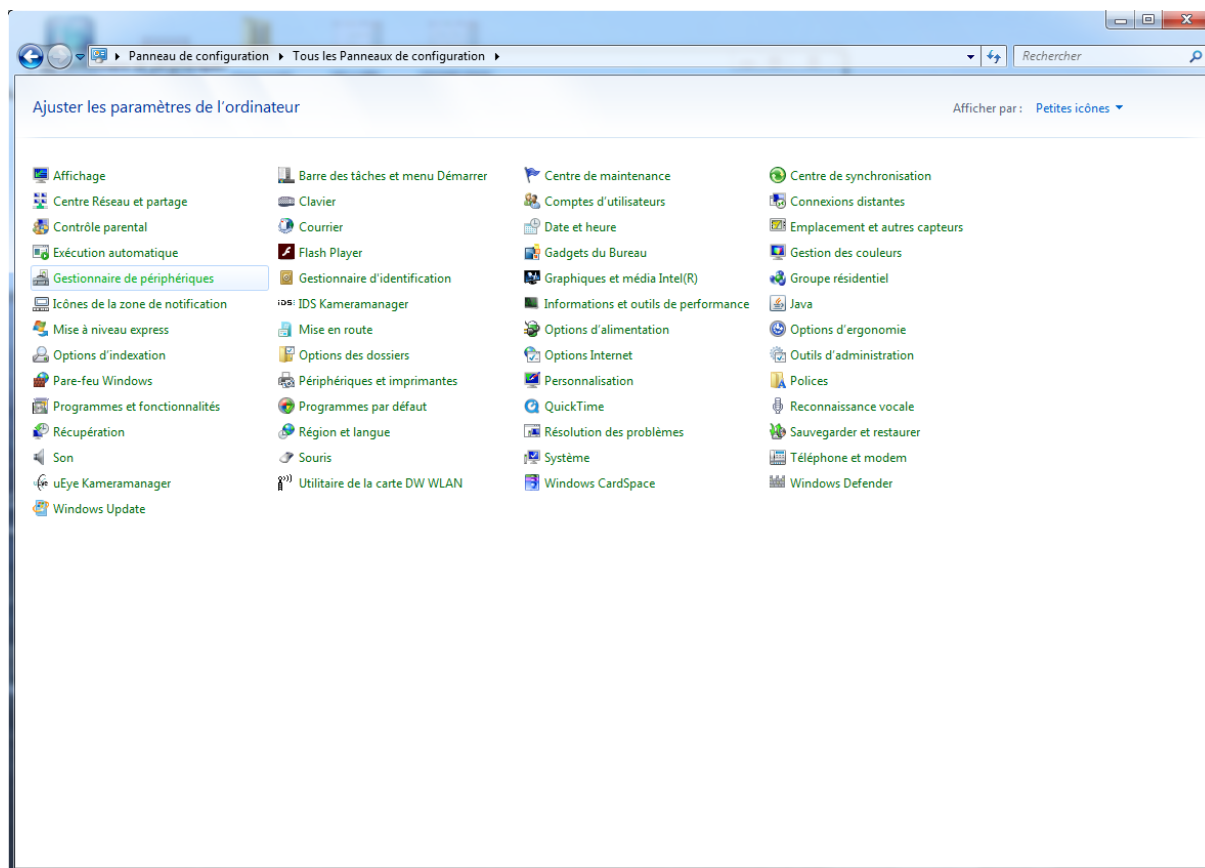
The below has been tested with the LABSPEC version N°6.4.4.16. Please ask Horiba Jobin Yvon for the most updated software. Please refer to the Labspec user manual for installation.

### **2. Installing the PIEZOCONCEPT nanopositioner**

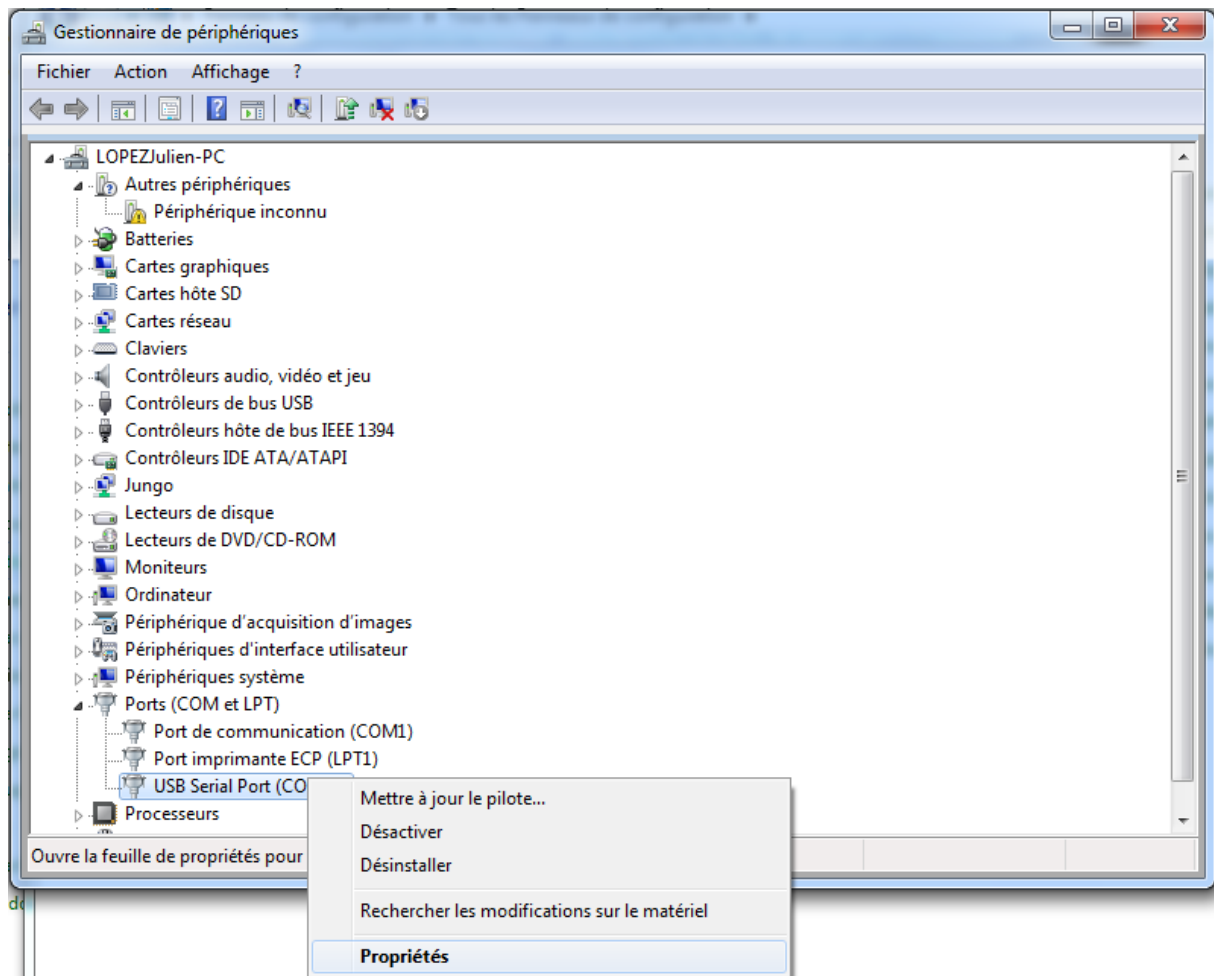
Before using Labspec together with our piezodevice, the nanopositioner should be correctly installed. Please refer first to our “Quick Start Guide”.

### **3. Finding/changing the COM port of the PIEZOCONCEPT nanopositioner**

Go in the Device Manager and search for the PIEZOCONCEPT nanopositioner. The device manager can be found at the configuration panel :



**Picture N°1 : Screen Copy of the Configuration panel (“Panneau de Configuration”)**

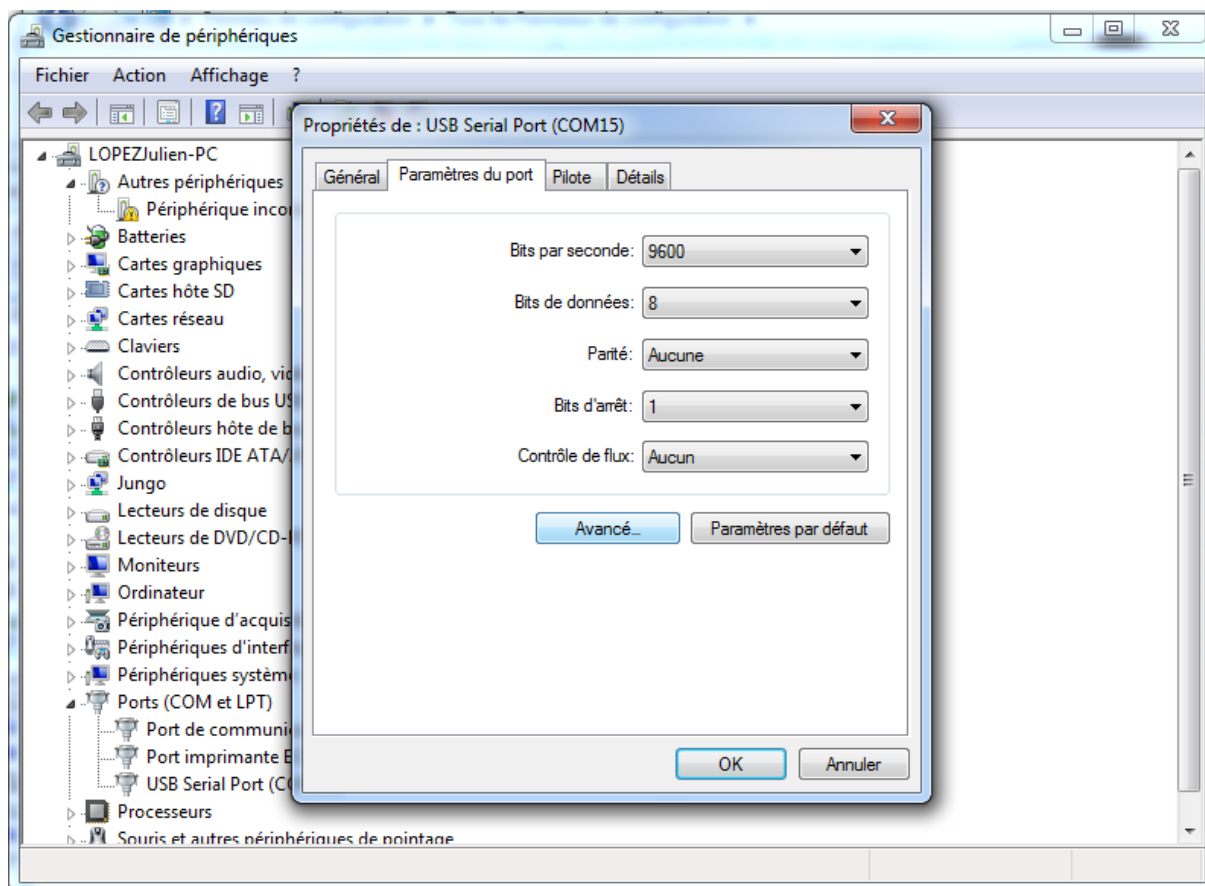


**Picture N°2 : ScreenCopy of the Device Manager (« Gestionnaire de Périphériques »)**

In order to help, you can plug/unplug the USB cable of the PIEZOCONCEPT controller. The PIEZOCONCEPT nanopositioner should appear/disappear accordingly, with the name USB Serial Port (COMXXX).

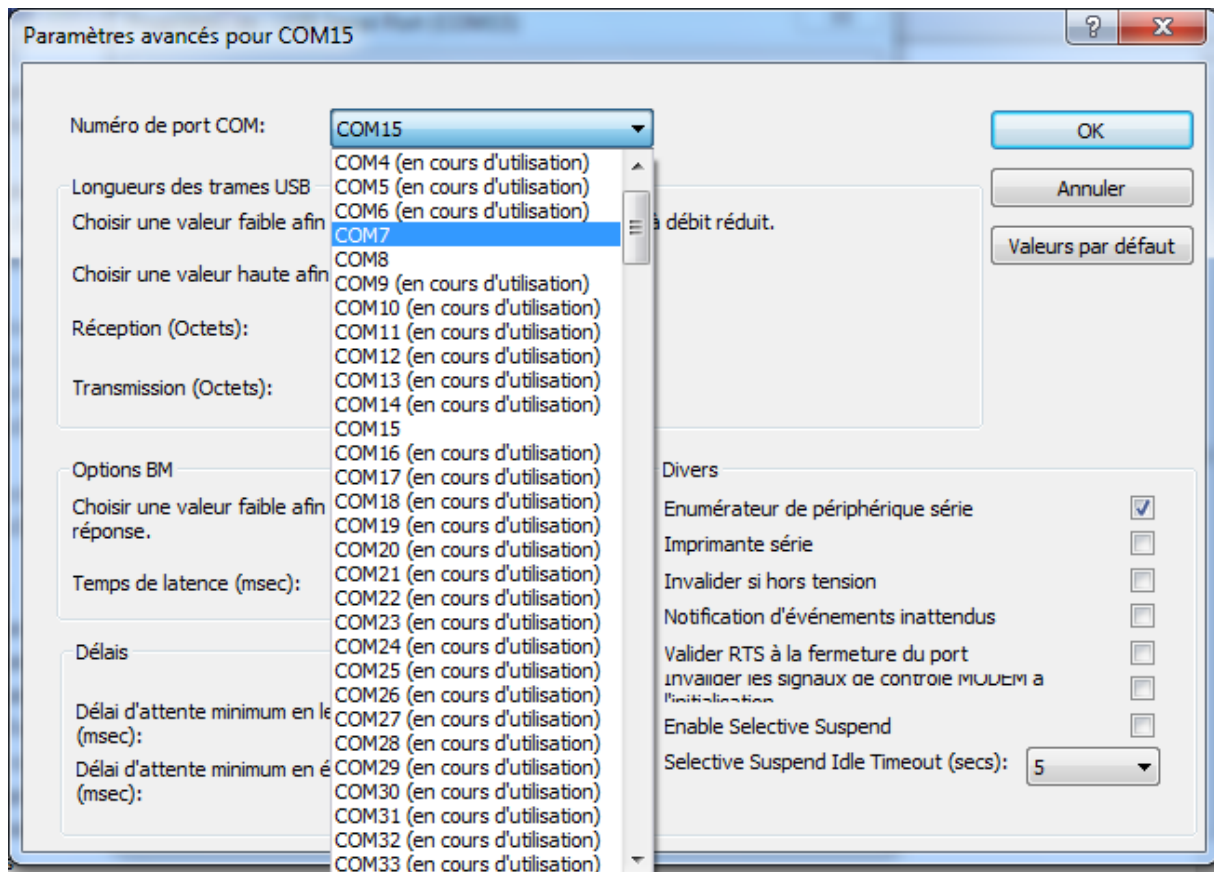
**If the COM port is strictly higher than 8, it is necessary to change the COM port that has been assigned to the PIEZOCONCEPT controller.** Indeed, the LABSPEC will not recognize a device which a COM port number higher than 8.

In order to change the number of the COM Port, click right on the “USB Serial Port” name, then on Properties (“Propriétés”) then a window will show up. If you click on the port parameter tab (“Paramètres du Port”), you will get the following window :



**Picture N°3 : ScreenCopy of the Properties of USB Serial port**

You should then click on advanced (“Avancé”) in order to get this window :

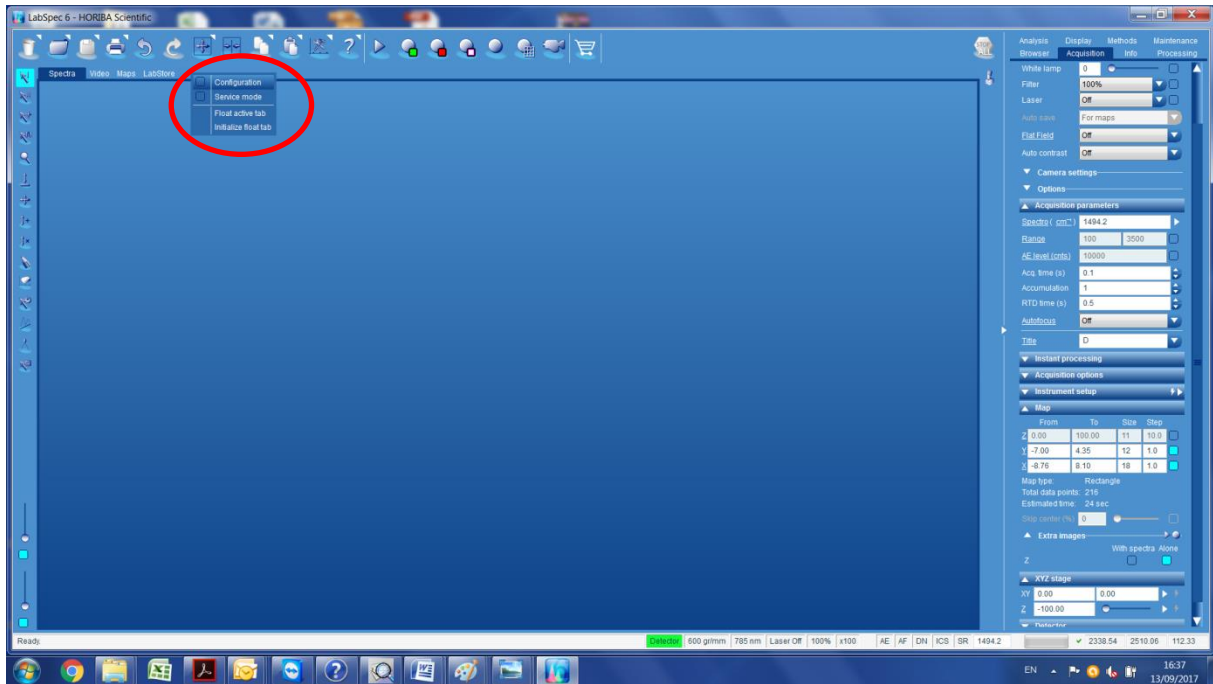


**Picture N°4 : Screen Copy of port number**

Here you can select a number between 1 and 8 which is not yet assigned.

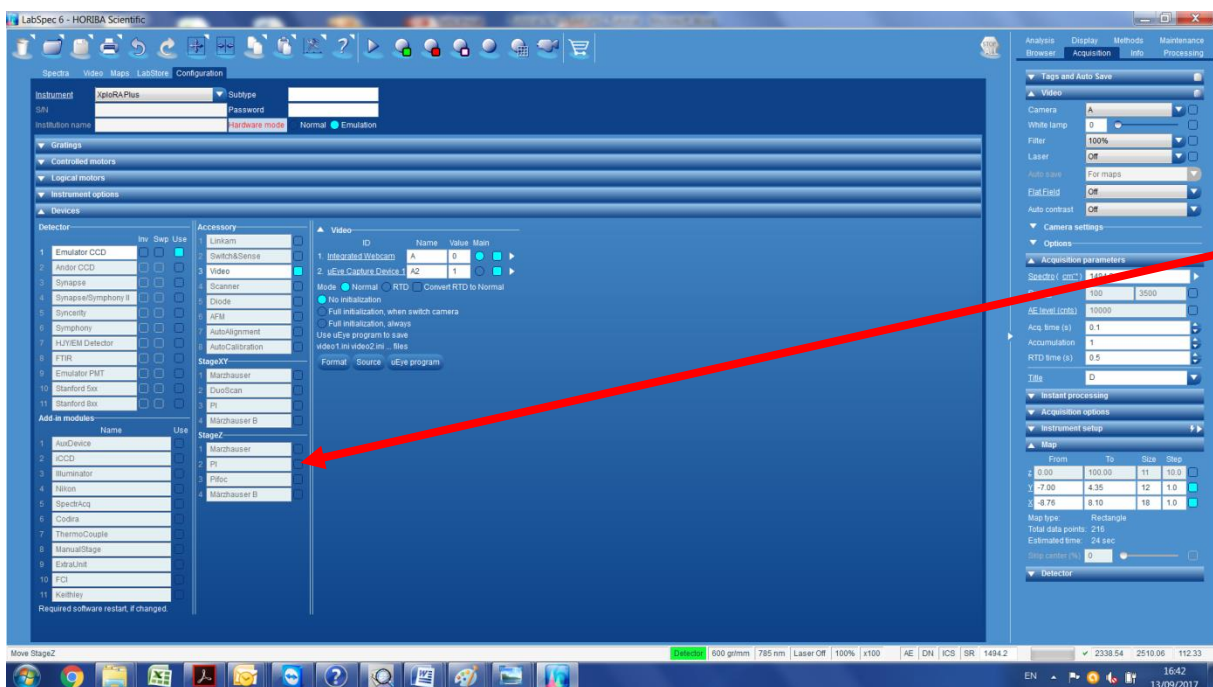
#### **4. Configuring the PIEZOCONCEPT nanopositioner in LABSPEC**

You can launch Labspec. Click right in the Menu bar, in order to activate the configuration tab. You should get this window :



**Picture N°5 : Screen Copy of the window you get when you right-click the menu bar**

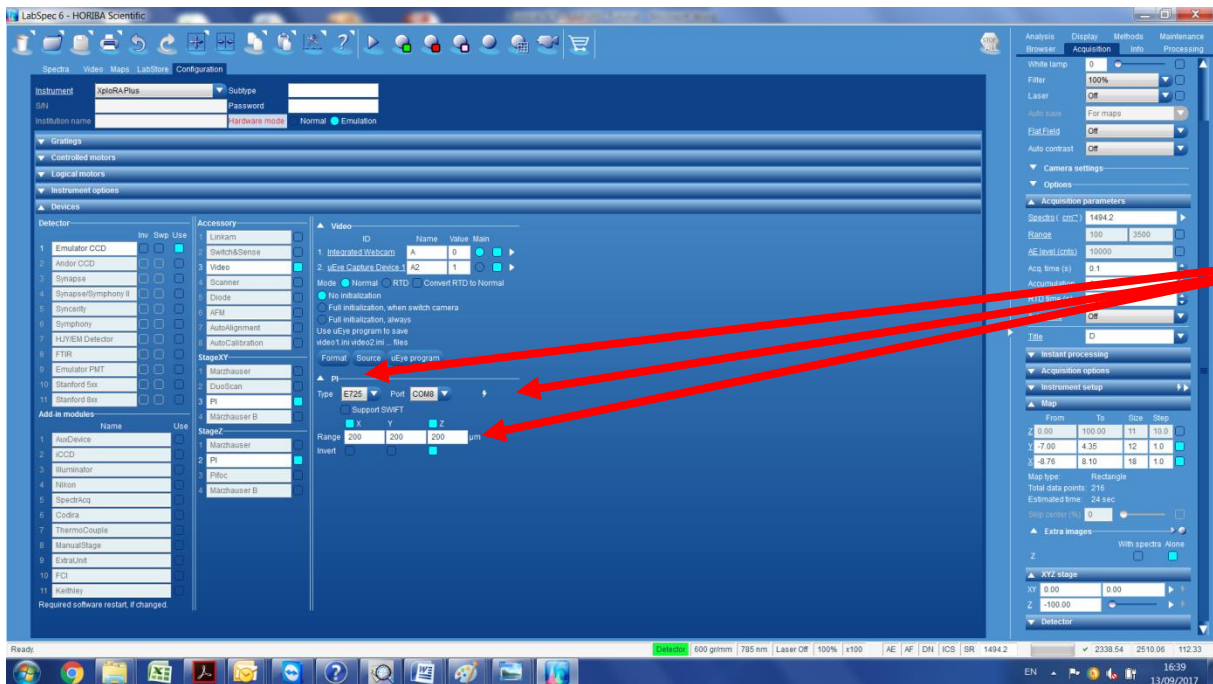
When you click on Configuration, the configuration tab shows up. You should click on one or the other PI's stage depending on the nanopositioner you have (XY stage, XYZ stage or Z stage).



**Picture N°6 : Screen Copy of the Configuration windows**

You should select the E-725 controller and the COM port of the PIEZOCONCEPT controller.

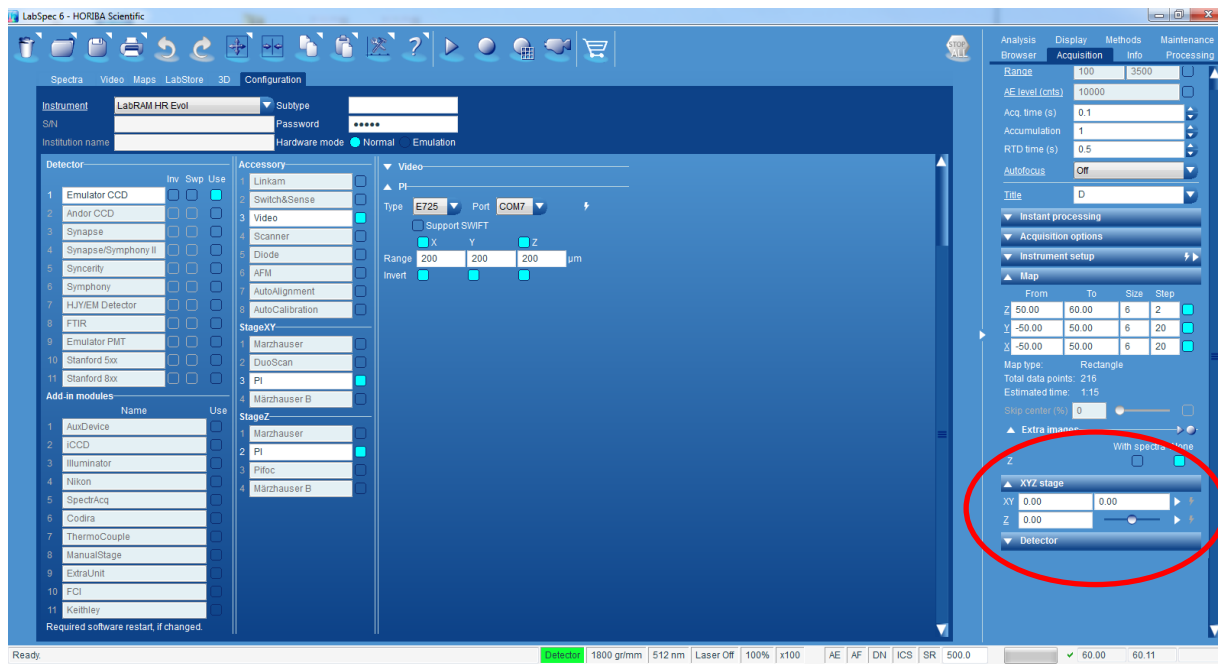
You should also mention the travel range of each axis.



**Picture N°7 : Screen Copy of the parameter to change**

You should then click on the Thunderstorm sign in order to connect the LABSPEC software with the PIEZOCONCEPT controller. If the PIEZOCONCEPT controller is recognized correctly, you can change the position of the stage if you go in the Acquisition tab =>XYZ stage





**Picture N°8 : Screen Copy of the Acquisition tab**

You can also use the Map function. If you experience any problem regarding the use of our nanopositioner with LABSPEC, please feel free to contact us at any time.