**Instructions for BlackBox Toolkit (BBTKv2)**

Check the **full manual** here <https://www.blackboxtoolkit.com/docs/pdf/UserGuideV2.pdf> (or inside the BlackBox case)

1. **Connect all necessary cables to the BlackBox:**
   * Power cable (charger)
   * USB cable to the computer
   * Any additional testing equipment you may need (e.g., photodiodes, microphone, TTL, etc.).
2. **Install the BBTKv2 software (if not already installed):**
   * Download the latest version from the BBTK website (<https://www.blackboxtoolkit.com/support_bbtkv2.html>).
   * Unzip the downloaded folder.
   * Run the setup.exe file to install the software.
   * After software installation, navigate to the unzipped folder.
   * Open the Drivers folder and run the driver installation file located inside.
3. **Set up COM port in the BBTKv2 software:**
4. Power on the BlackBox.
5. Open the BBTKv2 application. If you encounter a COM9 error:
   1. Go to **Tools** > **Start Up Options**.
   2. Change the COM port in the dropdown menu.
   3. Click **Check for BBTK** to confirm the connection.
   4. **Define inputs and adjust thresholds:**

* To begin using the BlackBox, you need to manually define the inputs and set thresholds:
  1. Navigate to **Tools** > **Sensor Threshold Manager**.
  2. Click the **Adjust Individual Threshold** icon (located below the **Help** menu) and confirm with **OK**.
  3. The BlackBox screen should now be ready.
  4. Press and gently rotate the knob to select the input you connected (e.g., photodiode 1).
     + Note: The knob can be sensitive, so adjust it slowly with patience.
  5. Once the input is selected, you can adjust the threshold for it.
  6. A blinking red light on the front of the BlackBox indicates that input is being detected.
  7. You can also use the **Input Line Checking** option under the **Tools** menu to confirm input and output settings (might be useful to find the TTL lines)
  8. Repeat these steps for all necessary inputs.

4. **Recording data:**

* Go to the **Self-Validate** menu and select **Digital Stimulus Capture**.
* Click **Clear BBTK** (located at the bottom).
* Set the maximum recording time.
* Click **Start** to begin recording.
  1. **Saving data:**
* To save the recording, click the **Save** toolbar button.
* This will generate an .rtl file, which can be opened using specialized scripts (check with Eleonora for available scripts ?).
* Alternatively, you can copy the output displayed in the top-left corner of the screen and paste it into an Excel file for further analysis.