## Analyzing the Knock Detective's output with Nistune V1.0 - Jan 15, 2025



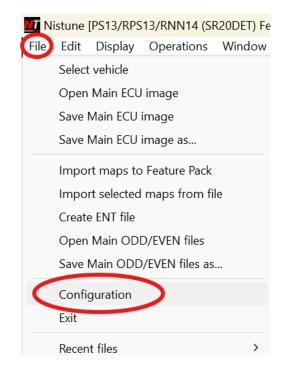


1 - In order to datalog external voltages you will require a <u>DLP-IO8</u> connected to your laptop while datalogging. It's very affordable and easy to use:



2 – Once you have your DLP-IO8 installed with the appropriate drivers, connect the **BLUE** wire from the Knock Detective to one of the 8 inputs. Splice in a ground wire from your Knock Detective to the GND pin on the DLP-IO8.

3 - Click File and then click Configuration:



4 – Click the **Wideband Settings** tab and then under the **Wideband Type** dropdown select **DLP A/D converter**. It's a bit misleading, but the external analog inputs are all considered "widebands" by Nistune. Under the **Port** tab select your COM port that represents the connected DLP device. In this example I do not have the DLP connected:

DLP A/D converter	Port:	None		-
None TechEdge WBO2 1.5	Port:	None		-
TechEdge WBO2 2.0 Zeitronix		Lambda	а	
Wite AEM UEGO/Boost	etective	€ WB1	C WB2	Rescan ports
AEM UEGO WIFI APSX D2 AFR Gauge			Min:	0.00
APSX B2 Boost Gauge	.00		- Max:	0.00
DLP A/D converter	.00		- III	
VEMS Wideband Just Another Wideband	.50			mport CSV
SLC DIY/Pure plus	.00			-
Garage 7 IPC ALM Wideband	.50		- In	port entries
PLX iMFD Innovate (Not Available)	.00			
3500	3.50			
4000	4 00			

5 – Under the **Channel** dropdown, select whichever input you have wired the Knock Detective to:

Channel:	
Aux1	-
Aux1	
Aux2	-
Aux3	in
Aux4	
Aux5	

6 - Change the title to Knock Detective:

Aux1 VB1: Knock Detective @ WB1 (					
Knock Detective	-				
0	0.00				
1000	1.00				
1500	1.50				
2000	2.00				
2500	2.50				
3000	3.00				
3500	3.50				
4000	4 00				

7 – Scroll down to the bottom of the table and delete all but the O, and 1000 row by selecting them and hitting the delete key. The left-hand column represents the input in millivolts, and the right-hand column represents the reported value to Nistune:

Channel:		L Lamuua	ι
Aux1 💌	WB1: Knock Detective	WB1	0
1000	1.00		
1500	1.50		_
2000	2.00		
2500	2.50		
3000	3.00		
3500	3.50		
4000	4.00		
4500	4.50		
5000	5 50		

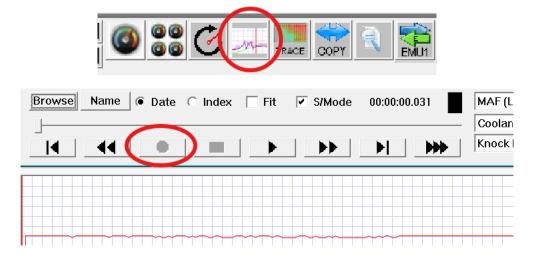
8 – Double click the 1000 field and change it to 5000, and then double click the 1.00 field and change it to 100. You now are reading 0-5V and reporting it as a value from 0-100:

Wideband Type					
DLP A/D converter	Port:	None		•	
None	Port:	None		•	
Channel:		🔲 Lambda			
Aux1 VB1: Knoc	k Detective	WB1	O WB2	Rescan ports	
			_		
Knock Detective	-		Min:	0.00	
0	0.00		Max:	0.00	
5000	100		Imr	port CSV	
				JUIT CSV	
				-	
			Import entries		

9 - Now in order to connect to the DLP and datalog the Knock Detective's output, you will need to connect to the "wideband" by clicking the **lambda icon**.



10 – While connected to both the ECU, and the "wideband" you can start a datalog by clicking the **datalog icon** and then the **record button**:



11 – The Knock Detective's signal will now be available as a dropdown and will be saved in your datalog for reviewing. Remember the voltage will grow with RPM, but you're looking for sharp spikes in the amplitude indicating potential knock events. I will have an example datalog in the future (it's currently winter in Canada):

