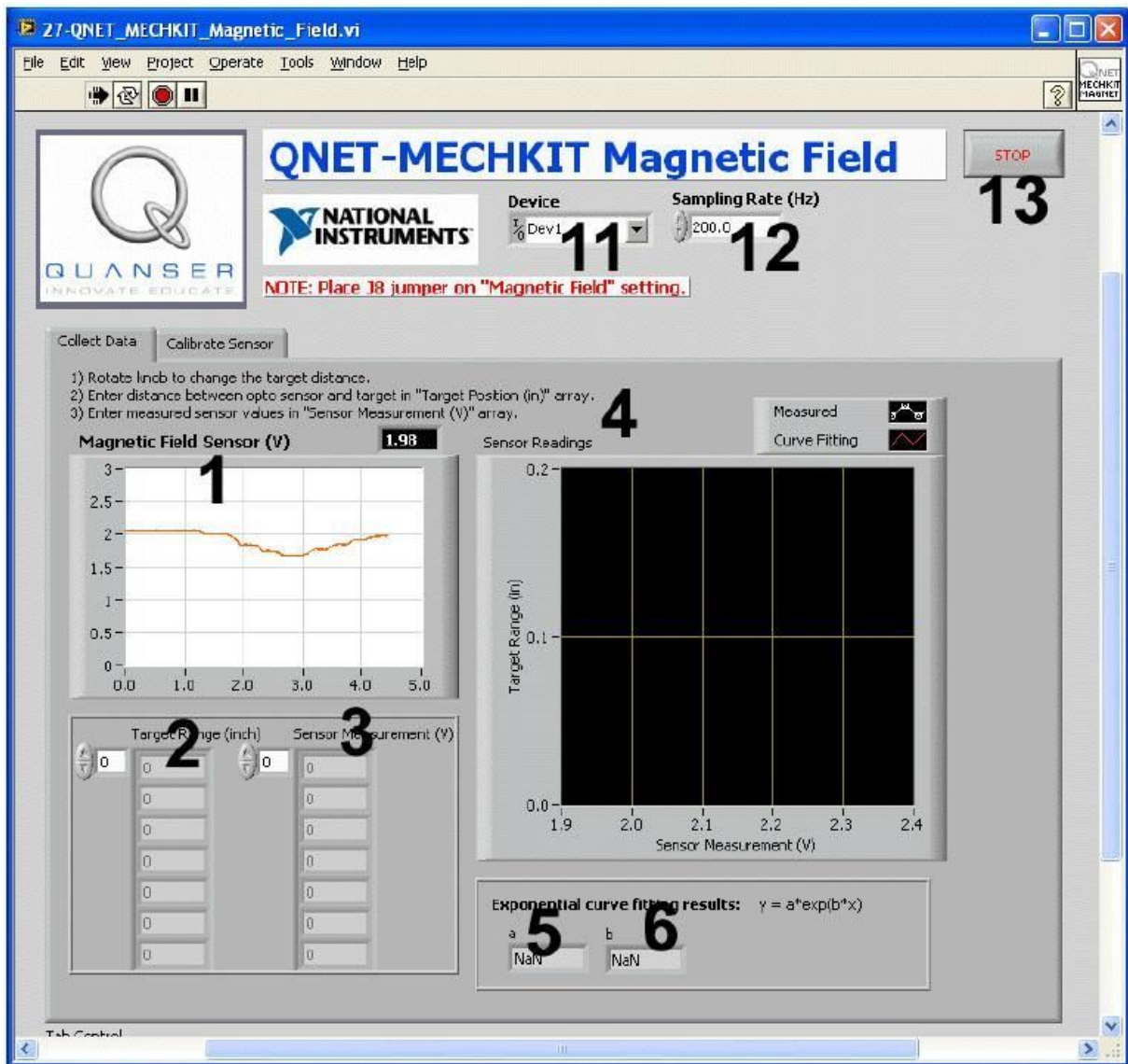# (Magnetic Field)

QNET

MECHKIT.
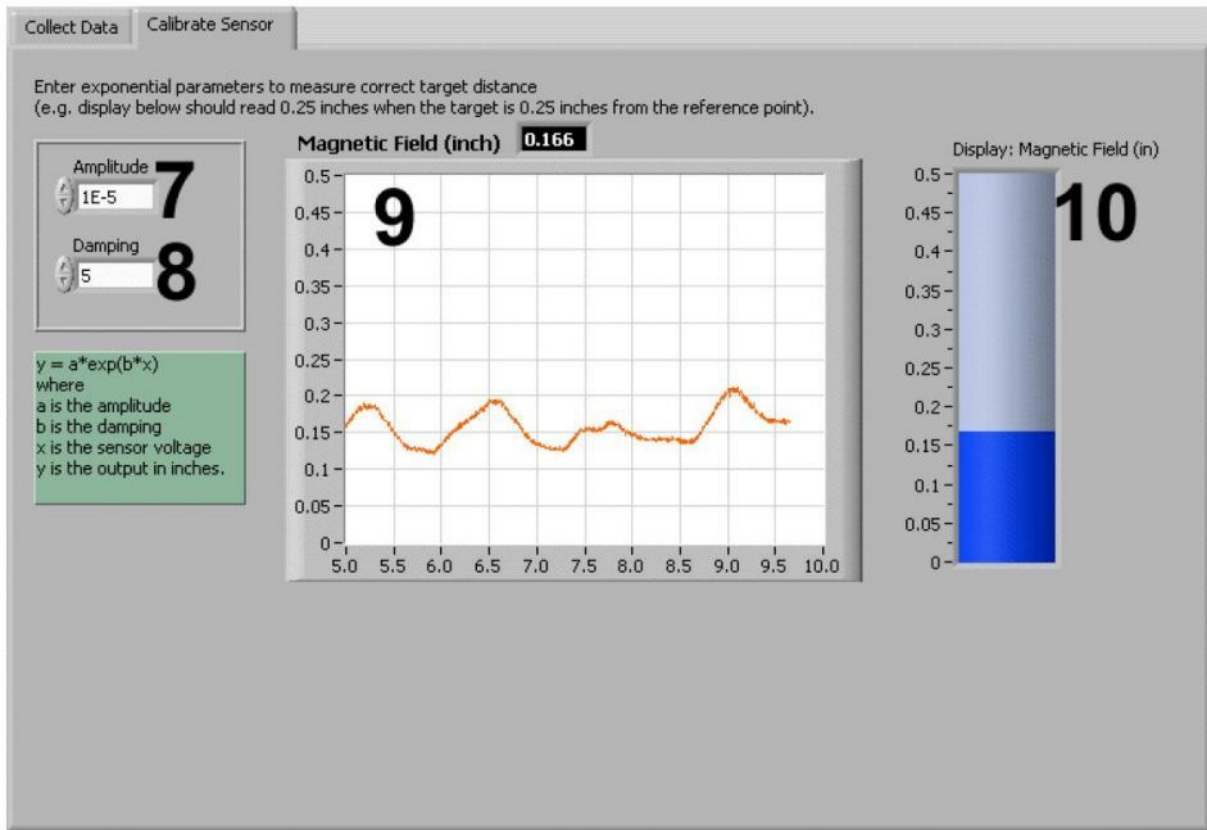
QNET_MECHKIT_Sonar.

1.

. 1. VI QNET MECHKIT Magnetic Field: "Collect Data"

. 2. VI QNET MECHKIT Magnetic Field: *"Calibrate Sensor"*

1.   *VI QNET MECHKIT Pressure Sensor*

ID			. .
1	Magnetic Field Sensor (V)	, - , .	
2	Target Range (in)	.	
3	Sensor Measurement (V)	- , - .	
4	Sensor Readings	- .	
5	a	, .	
6	b	/ - , - .	
7	Amplitude	- .	

8	Damping	/ - .	
9	Magnetic Field (inch)	- , - *Amplitude Damping.*	
10	Magnetic field (in)	, - *Amplitude Damping.*	
11	Device	DAQ- .	
12	Sampling Rate	- .	
13	Stop	, VI	

2.

1. , **J8** **Magnetic Field**.

2. QNET_MECHKIT_Magnetic_Field.vi.

3. , *Device* ,
3.

. 3 .

2.1.

1. .
- . 0 . 0 Target Range ( )
(. 4). 1 in = 2,54 .
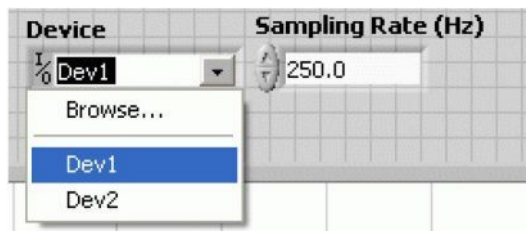
2. ,
0 , *Sensor Measurement (V)* (. 4).

3. , -
. 1 20 .
, *Target Range (in)* (. 4).

4. *Sensor Measurement (V).*

5. (. . -
). ,
_
. -
.

6. **1.** -
2 Sensor Readings.

3

7.   VI,   *Stop*.

           . *4.*

2.2

1.   VI QNET_MECHKIT_ Optical.vi.

2.   *Calibration Sensor*   -
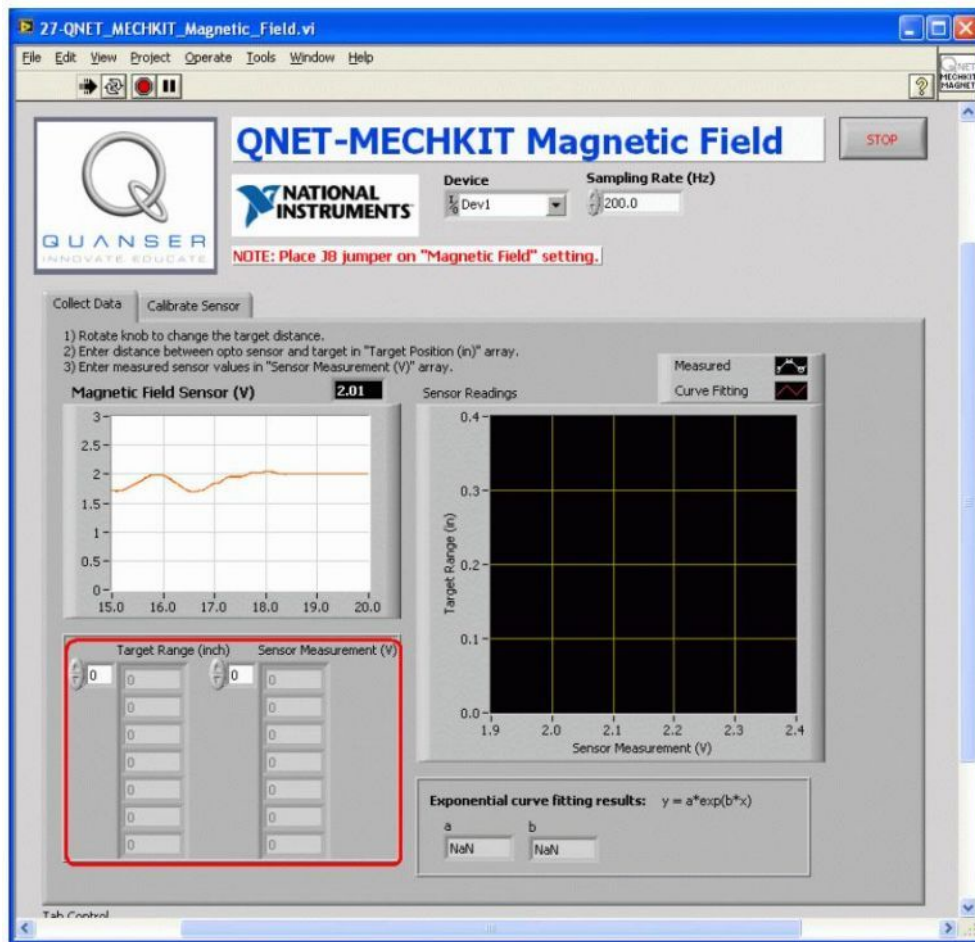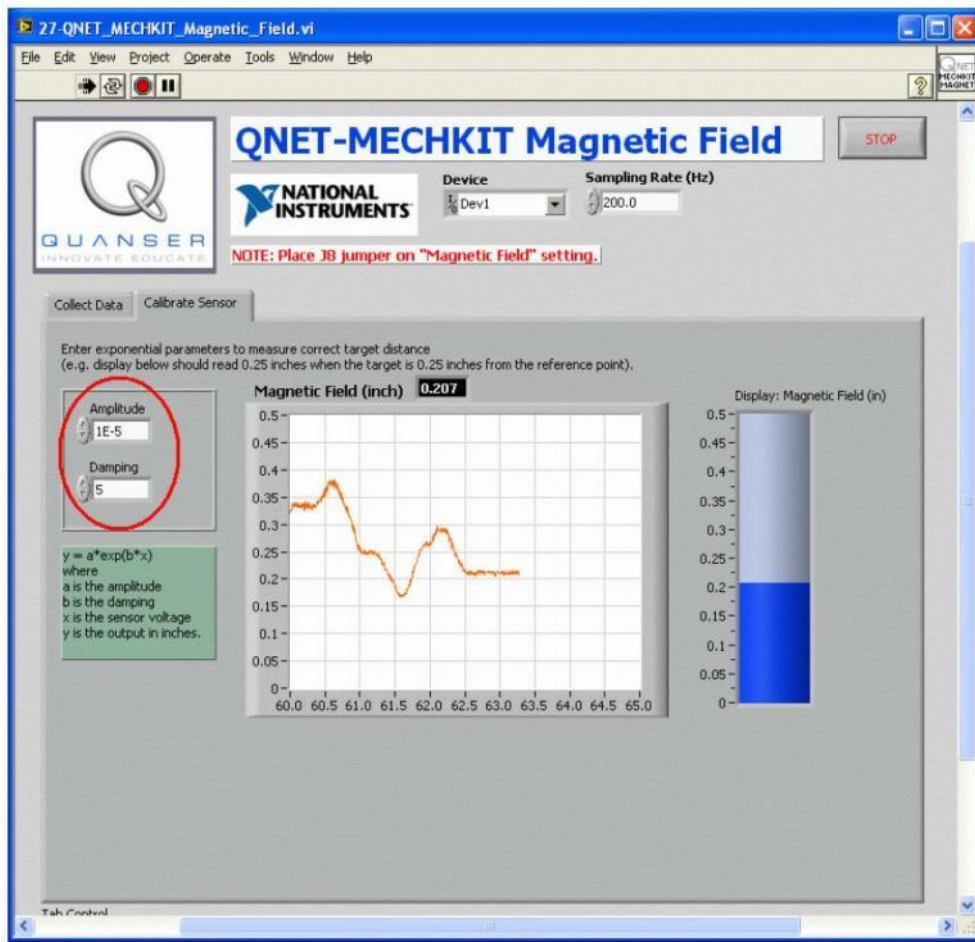   *Gain* *Damping* (. 5),   -
,   ,   0,10   ,   -
           0,10   .
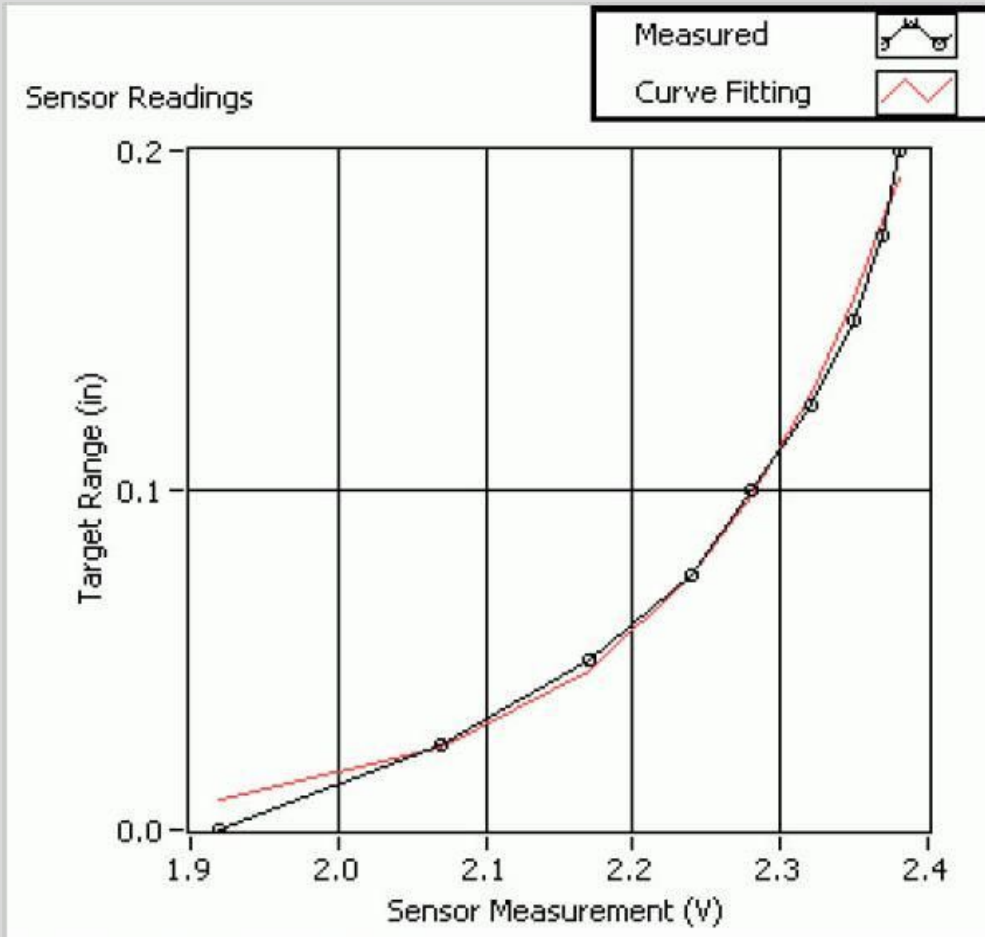
3.   3.

Figure 10: Magnetic field sensor calibration

. 5.

2.3

1.

2.

( )	( )
0	1.92
0.025	2.07

:

6.

. 6. ,

*Measured –   ; Curve Fitting –   ; Sensor Reading –
,   ; Target Range (in) –   (   ); Sensor
Measurement (V) –   ( )*

2.

3.

:			
	2.29E-008	/	
	6.7		

-0.5
2SA10
SS511AT
,   ,   ,   (   ).