# Phantom® Premium Devices Quick Start Guide

## For 1.5 6DOF, 1.5HF 6DOF and 3.0 6DOF Devices

1. Remove any previous version of the Phantom Device Driver that is installed on the computer.
   - **XP**:   Control Panel -> Add/Remove Programs
   - **Vista**:   Control Panel -> Programs and Features
   - **Win 7**: Control Panel -> Programs -> Uninstall a program
2. Insert the product CD.
3. Double click on **Phantom_Device_Drivers_5.1.7_Release.exe** to install PDDv5.1.7.
4. After the PDD has installed, select the option in the installer to **Restart Your Computer**.

5. From the Desktop or Start Menu>All Programs run the Phantom Configuration .
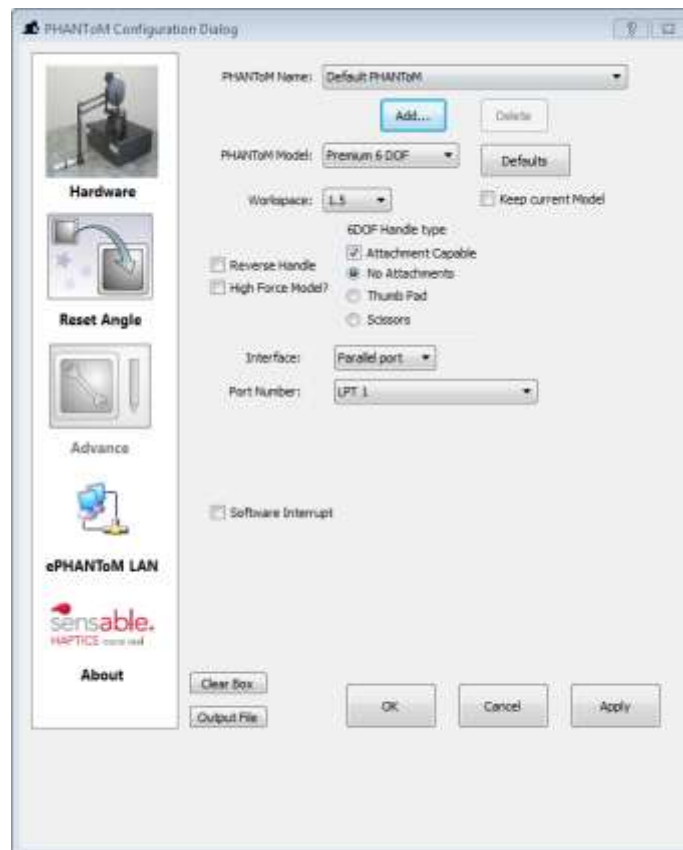
6. Make sure that the correct device is selected in the **Workspace** drop down menu.
7. If you are using the **Reverse Handle** and/or have a **High Force Model**, select the check box(es).

8. Select the check boxes for **Attachment Capable** or **No Attachments**.
   NOTE: If you have a 1.5 6DOF Device that is not Attachment Capable, having that check box selected may result in your device not working properly.
9. Select the radio button for **Thumb Pad** or **Scissors** depending on which end effector you are using. If you are not using an end effector select **None**.
10. Make sure the correct **Interface** is selected (Parallel Port or 1394).
11. Click the **Apply** and **OK** buttons in the Phantom Configuration dialog.
12. On the Desktop, click to open the **Phantom Test**.
13. Click the **Next** arrow in the bottom right of the dialog or click the Select tab to move on to the next step.
14. The **Select** tab initializes the Phantom device and begins to run to the Servoloop. Click the Next arrow when the six remaining test tabs appear in the dialog to move on to the Calibration stage.
15. Hold the styuls in the **Reset** position (90° right angle with handle facing you) and click the **Calibrate** icon. When the device is successfully calibrated the Calibrate icon will turn **Green**.
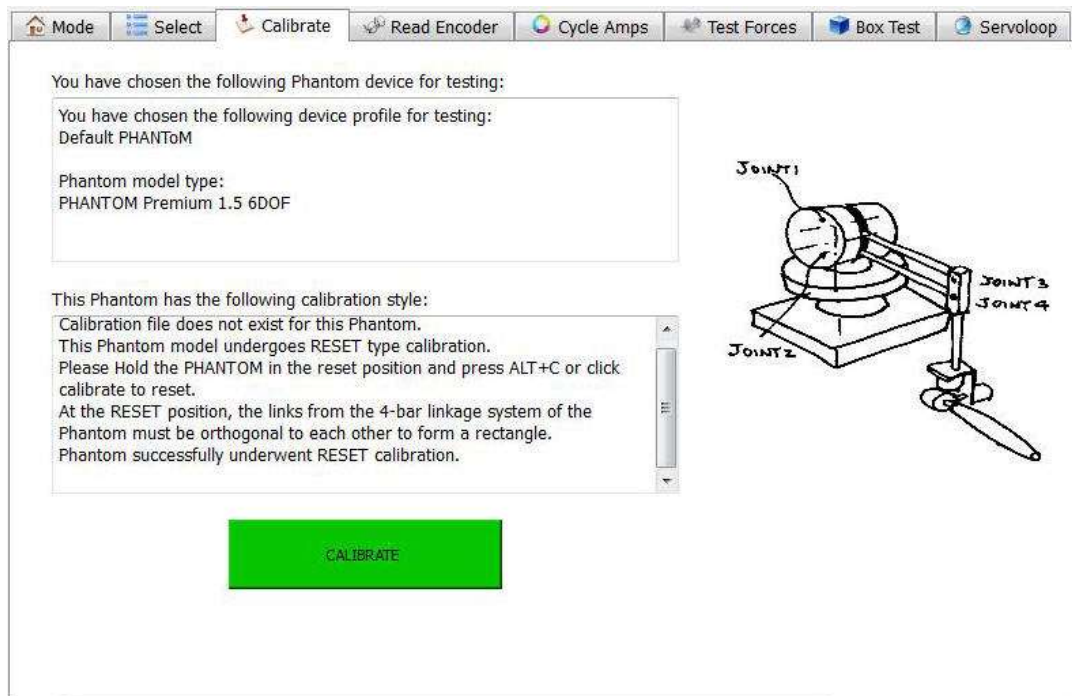
NOTE: The example image above displays a successfully calibrated 1.5 6DOF Premium Device. The appearance of this dialog will differ depending on which Premium device you have purchased.

16. On the **READ ENCODERS Tab –** Once unit is calibrated. Any movement you make with the stylus will be reflected in the values in this window.
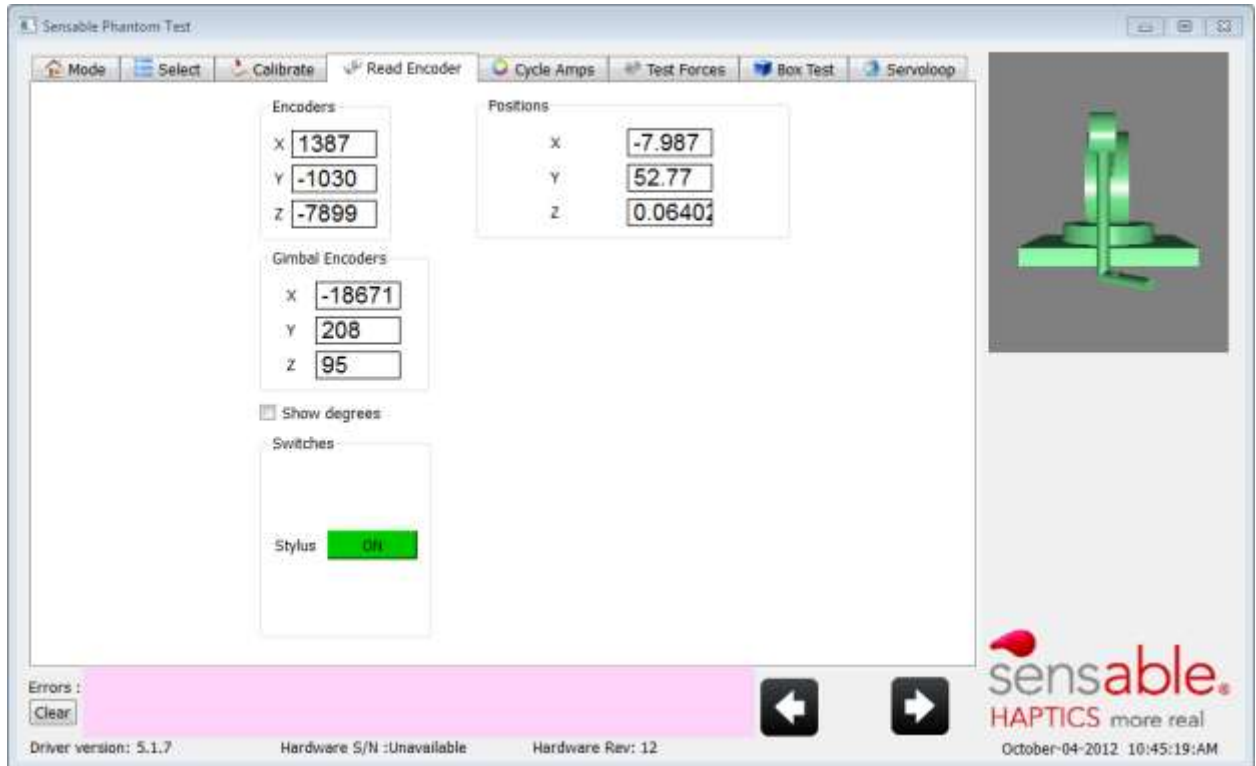

Encoder (arm)
- **X Encoder** – While moving left to right along X axis Encoder values should be changing constantly. Display should be reflecting your movement.
- **Y Encoder** – While moving up and down along Y axis Encoder values should be changing constantly. Display should be reflecting your movement.
- **Z Encoder** – While moving in and out along Z axis Encoder values should be moving changing. Display should be reflecting your movement.

Encoder Gimbal (handle)

NOTE: This will only appear if the gimbal encoder is connected.
- **X Gimbal Encoder** - While moving left to right along X axis gimbal Encoder values should be changing constantly. Display should be reflecting your movement.
- **Y Encoder** – While moving up and down along Y axis gimbal Encoder values should be changing constantly. Display should be reflecting your movement.
- **Z Encoder** – While moving in and out along Z axis gimbal Encoder values should be moving changing. Display should be reflecting your movement.

17. On the **CYCLE AMPS Tab** the Amplifiers should flicker **ON/OFF** and the Device Fault should be **NO**.
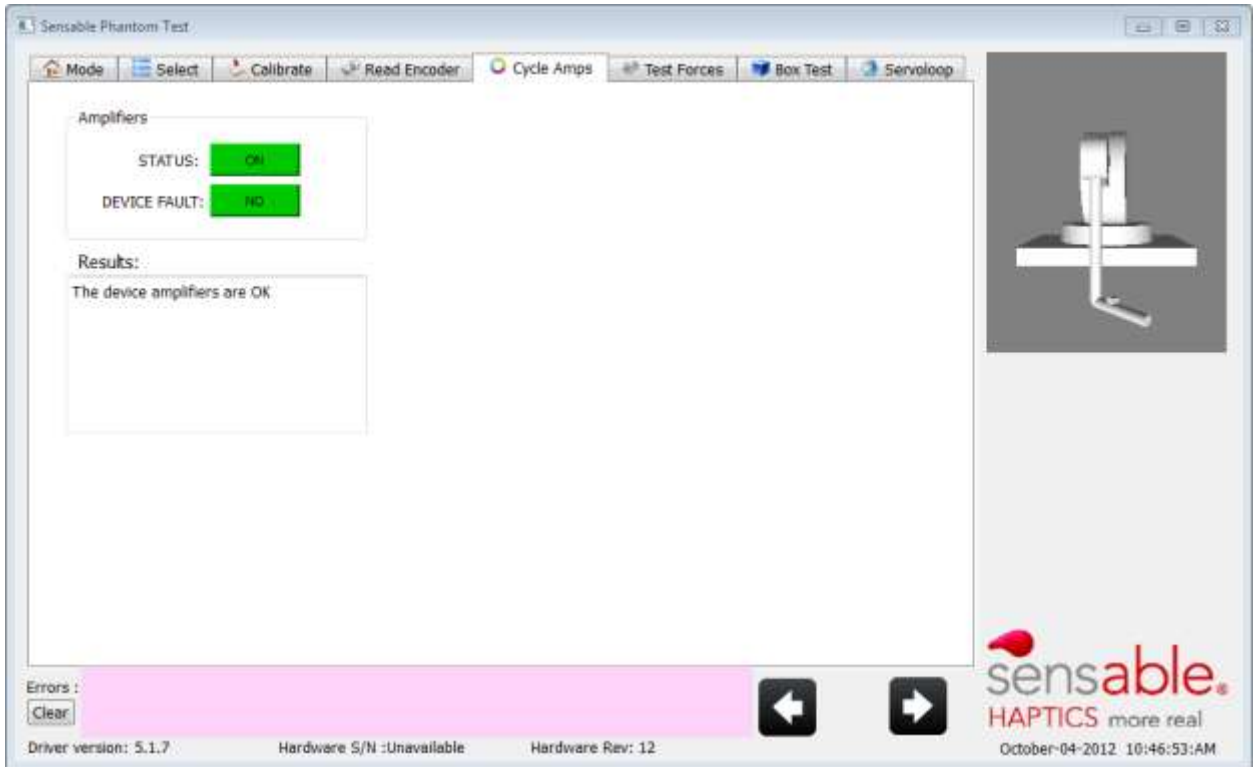
18. On the **TEST FORCES Tab**
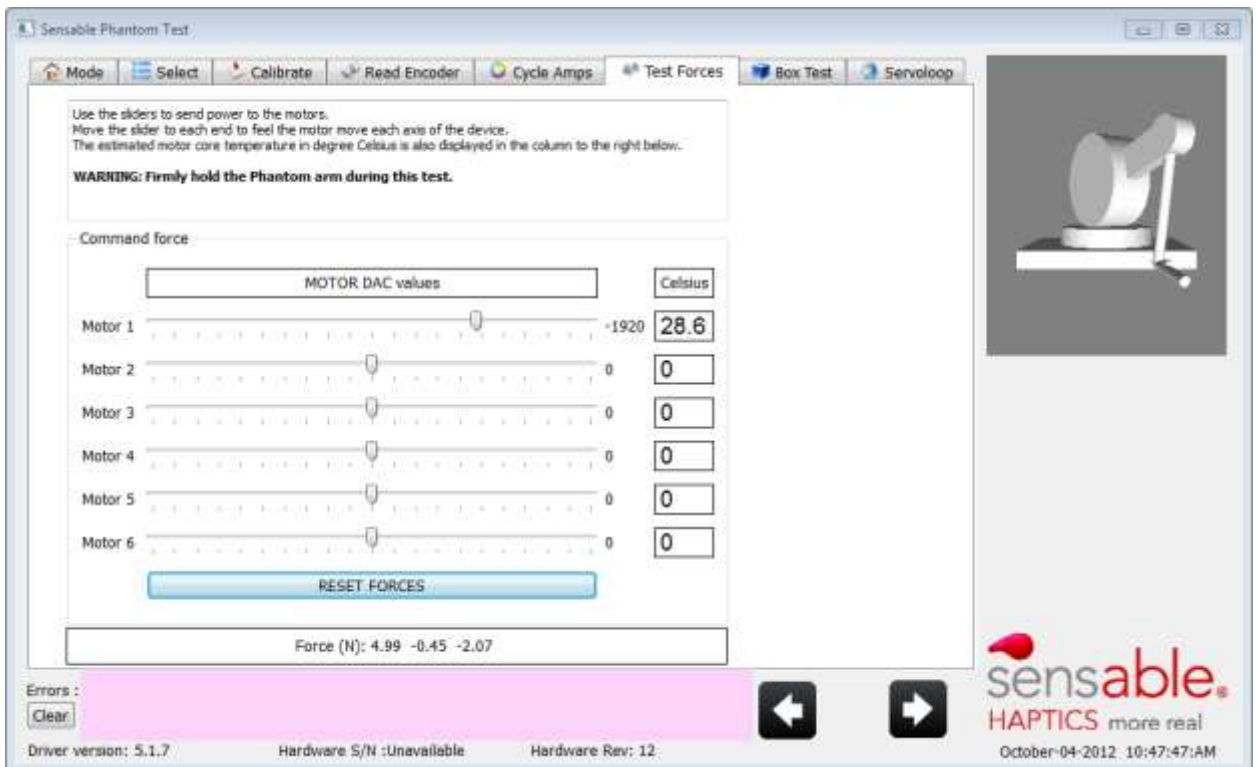
Motors:

NOTE: When adjusting the motor forces for each axis, be sure to hold the Arm/Handle to guide the device through the movement while preventing damage.

- **Motor 1 (X axis)** – Moving slider left should move X axis to left, Moving slider right should move arm to right
- **Motor 2 (Y axis)** – Moving slider left should move Y axis downwards, Moving slider right should move Y axis up
- **Motor 3 (Z axis)** – Moving slider left should move Z axis in towards unit, Moving slider right should move Z axis out
- **Motor 4 (Tx axis)** – Moving slider left should move Tx axis to left, Moving slider right should move handle to right
- **Motor 5 (Ty axis)** – Moving slider left should move Ty axis downwards, Moving slider right should move handle up
- **Motor 6 (Tz axis)** – Moving slider left should rotate counter clockwise on handle, Moving slider right should rotate handle clockwise

19. On the **BOX TEST Tab** you should be able to move/touch along the corners inside and out. Moving along the sides should be smooth.