

Troubleshooting Inclinometer Connection Issues: Checking the Virtual COM Port

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When working with inclinometers and connecting them to a computer via USB, you may occasionally encounter a problem where no reading appears in your software - especially when using tools like the SEI Explorer to check the inclinometer status.

This issue can be frustrating but in many cases, it's caused by a disabled virtual COM port (VCP) on your computer. Here is a summary of what you need to know and how to fix it:

Summary

Step	Action
1	Connect cables securely
2	Open Device Manager
3	Look for the correct COM port
4	Enable the port if it is disabled
5	Reopen SEI and verify readings

Step-by-Step Fix: Check the Virtual COM Port

1. Check Cable Connections

If you are 100% sure the cables are connected properly, and the hardware is powered on and functional, then the issue is likely not physical - it is a software or driver-related problem.

2. Open Device Manager

Press Windows + R, type devmgmt.msc, and click [OK] or press Enter. This opens the Device Manager window.

3. Look Under "Ports (COM & LPT)"

As shown in image on the next page, expand the Ports (COM & LPT) section and look for something like:

- USB Serial Port (COMx)
- Inclinometer Interface (COMx)
- Or the name of the USB-to-Serial adapter you're using (e.g., FTDI, Prolific, CH340).

4. Check if the COM Port is Disabled

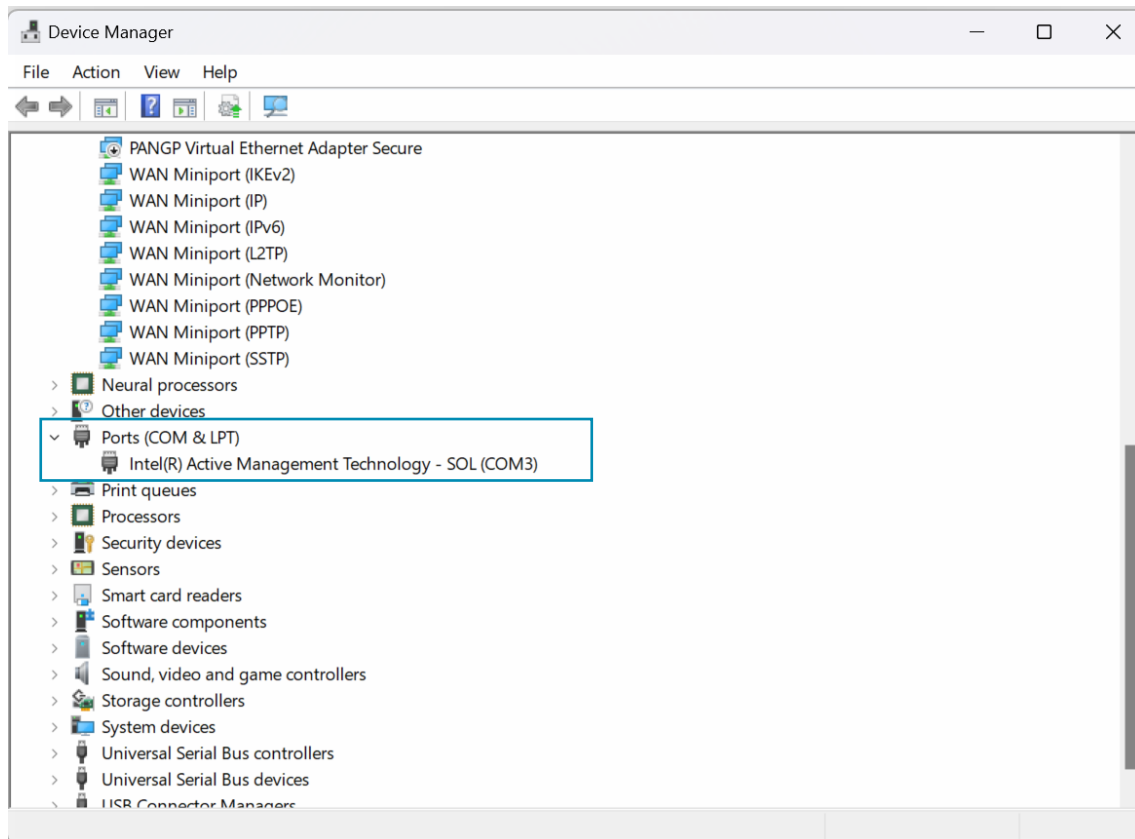
If the COM port icon has a small downward arrow ↓ next to it, that means it's disabled. Right-click on it and select Enable device.

5. Reopen SEI

After enabling the VCP, reopen SEI or refresh the connection. You should now see the inclinometer readings populate normally.

The image below shows the Device Manager window with the outlined Ports (COM & LPT) section expanded. You may need to scroll down to find this section.

*Note that this image is for the purpose of locating the Ports (COM & LPT) section only and the contents of the dropdown menu does not represent what will be displayed on your device.



Still Not Working?

If you're still not seeing data after enabling the COM port:

- Unplug and reconnect the inclinometer cable.
- Try another USB port.
- Make sure you're selecting the correct COM port number in SEI.
- Check that the drivers for your USB adapter are up to date.

Pro Tip:

Some USB-to-serial adapters allow you to configure or disable the VCP feature via EEPROM tools (like FT_PROG for FTDI devices). Make sure VCP mode is enabled if you're using those chips.