

1. Introduction

Congratulations on your purchase of the SingleTact USB Sensor System!

This is the simplest way to use SingleTact pressure sensors, suitable for beginners and experts, students and professionals alike.

This quick start guide will show you how to set up your SingleTact USB system and begin taking recorded measurements.

Some important things to note are:

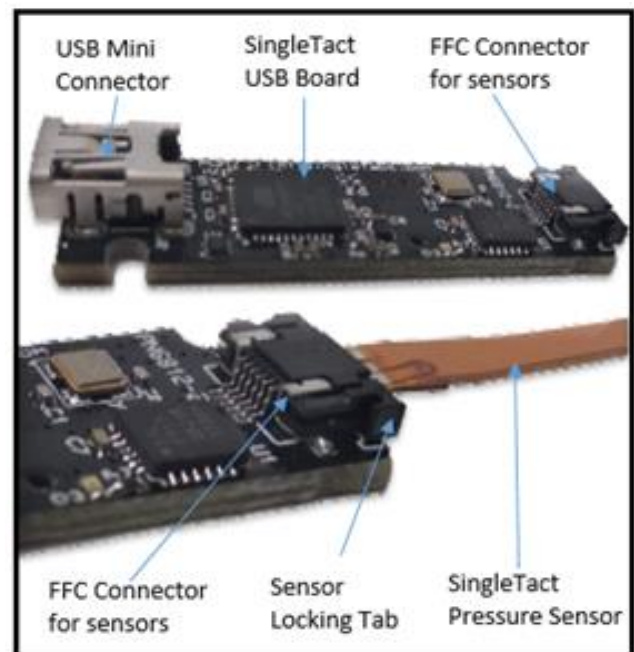
- The SingleTact USB board allows for easy implementation and evaluation of SingleTact pressure sensors, without the need for external microcontrollers or wiring circuits.
- Each SingleTact USB board can interface with a single SingleTact pressure sensor, and can output data directly to our freely available SingleTact Data Acquisition (DAQ) software.
- Multiple USB boards can be connected to a single PC and displayed on the DAQ software.
- The SingleTact USB board does not have an analogue output. Instead, a pressure-variable LED is provided onboard to aid in pressure reporting.
- The SingleTact USB board is compatible with our full range of SingleTact pressure sensors and tail extenders.

2. Setting up your SingleTact system

Connecting the SingleTact USB board is simple, but care must be taken not to damage your sensor.

- Pull out the Sensor Locking Tab gently (it will move about 2mm, take care not to damage it)
- Insert the SingleTact sensor of your choice into the FFC Connector, taking care to match the orientation as shown on the image to the right
- Push in the Sensor Locking Tab to secure the sensor in place.
- Insert the supplied USB Mini cable into the FFC Connector.
- Plug the USB cable into an available USB port on your PC or laptop.

You are now ready to begin using the SingleTact DAQ software!



To test that your SingleTact USB board and SingleTact pressure sensor are connected correctly, press lightly on the sensor face with your finger. You will see a red LED light up when you load the sensor. The brightness of the LED is proportional to the applied load.

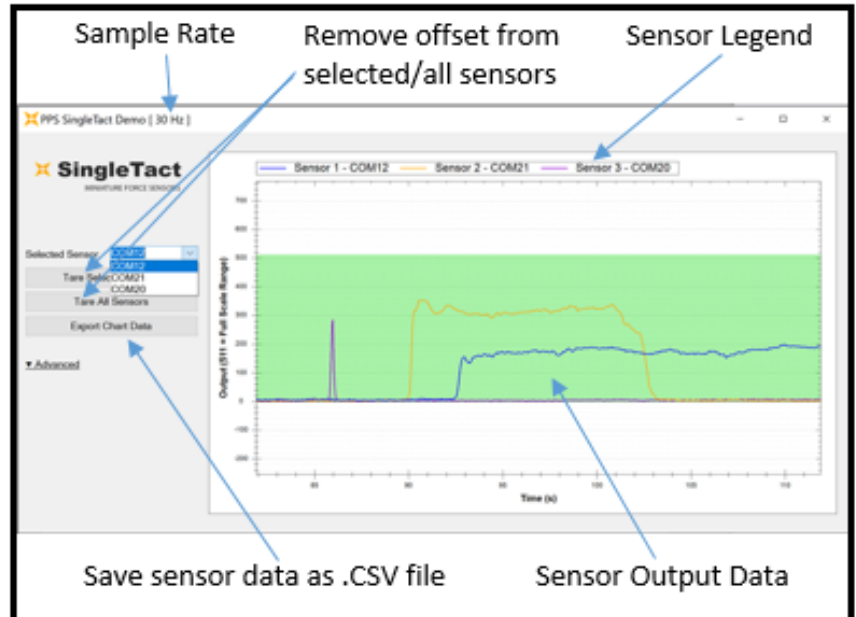
3. Making measurements using the SingleTact DAQ software

The SingleTact Data Acquisition (DAQ) software is the graphic user interface (GUI) and recording tool for the SingleTact pressure sensors.

- Download the executable app from: <http://www.singletact.com/software-download/download-links/>
- Connect the assembled SingleTact USB board and sensor to the PC (or multiple USB boards)
- Run 'SingleTact Demo.exe'

The sensor data will be shown on the GUI graph. You can choose whether to interface with a single or multiple sensors all at once.

The sensor data can be saved as a .CSV file for later analysis using the GUI.



You are now ready to use your SingleTact USB systems to make pressure and force measurements! Remember that the GUI is scaled from 0 to 511, and so the measured force will be given by the following equation, unless otherwise stated on the GUI:

$$Force = \frac{Output * Sensor Rating}{512} (N)$$

4. What's Next?

Additional information can be found in the detailed SingleTact manual, such as:

- Using SingleTact Tail Extenders
- Advanced DAQ Options
- Troubleshooting

The manual can be found here: http://www.singletact.com/SingleTact_Manual.pdf

Assistance for your specific application may be found on our forum and community pages.

You can also post questions or share your project story via our community pages: <http://www.singletact.com/community/>