University College Cork

Anser Electromagnetic Tracking System

Quick Start Guide

Content

1 Inventory

The following components are required for using the Anser EMT system.

1.1 Hardware

1 x Anser EMT field generator (Figure 1)

1 x Anser EMT base station (Figure 2)

1 x Calibration probe (Probably needed for every system) (Figure 4)

1 x 3m centronics cable (Figure 5)

2 x USB A-B cable (Figure 6)

1 x Barrel jack power supply 15V (Figure 7)

1.2 Software

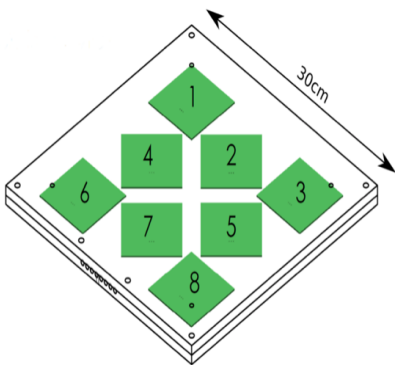1 x Windows 7/8/10 PC

1 x National Instruments DAQmx driver

Figure 2. Base station

DAQ.   DC-IN   PWR   MCU

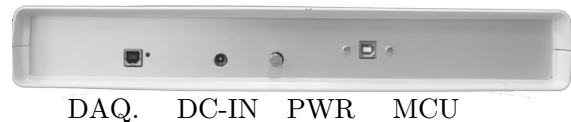Figure 1. EMT field generator

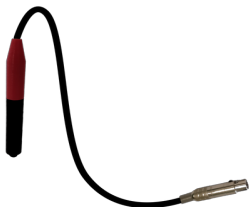Figure 3. Back panel of base station

Figure 4.

Calibration senor probe

Figure 5.

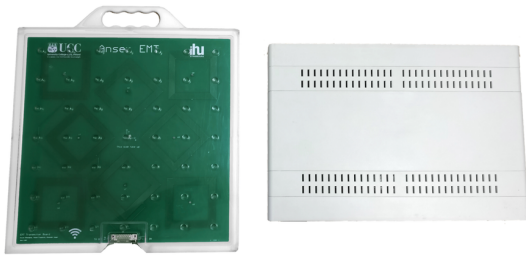Centronics cable

Figure 6.

USB A-B cable

Figure 7.

Power supply

2 Hardware & Drivers

2.1 Hardware Setup

1.

Place the Anser EMT field generator and base station on a metal-free surface.
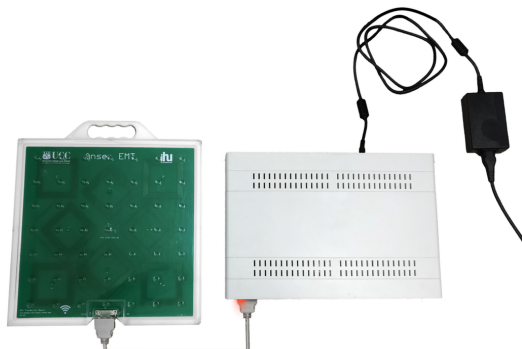

2.

Connect the base station to the field generator using the supplied centronics cable.
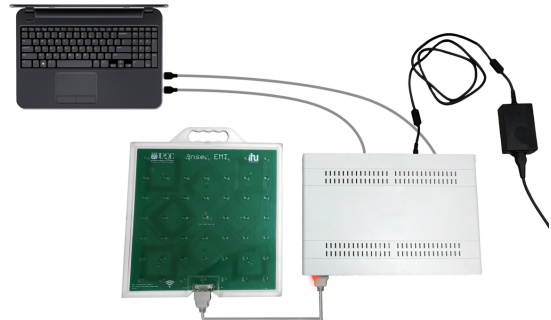

3.

Connect the barrel jack power adapter to the base station via the DC-IN port.
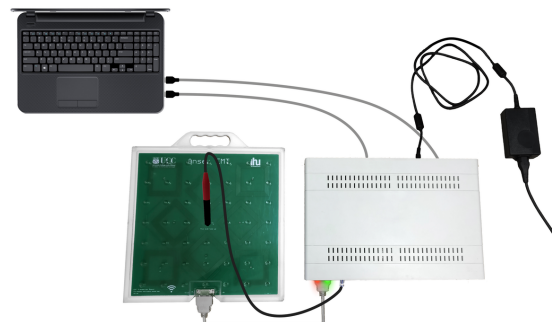The red standby LED located on the front panel of the unit should light up.

4.

Connect the Windows PC to the NI-DAQ port of the base station using the supplied USB A-B cable. Using a second USB A-B cable connect the Windows PC to the MCU port.

5.

Connect a calibration sensor probe to the first port on the front of the unit. Power on the base station by pressing the PWR button at the rear of the unit. The green LED located on the front panel of the unit should light up.

2.2   Drivers

On your windows PC install the National Instruments DAQmx driver. This can be found at https://www.ni.com/.

Once the PC has been connected to the base station the NI Measurement and Automation explorer provided with the driver should launch after approximately 10 seconds. Take note of the National Instruments device enumeration e.g. DevX. If this is the first time an National Instruments device has been connected to the PC then its enumerated name is Dev1 (see Figure 8).
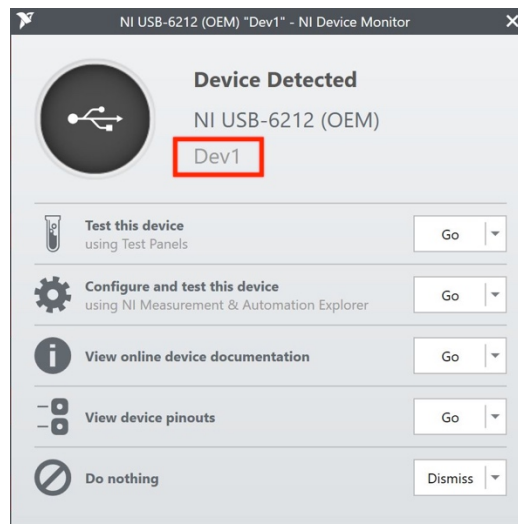

Figure 8. NI Measurement and Automation Explorer