Robot Positioning System Quick Starter Guide

1. Introduction

The purpose of this document is to explain how to operate the Robot Positioning System in less than one hour for a first test by leveraging its pre-configuration settings.

2. Introduction

The components included in the kit are:
- 4 anchors
- 1 tracker
- 4 mounting brackets
- 1 USB/RS232 communication cable 1.8 m
- 4 USB/Molex header power cables 3 m each

To power the four anchors, you need to connect them to batteries without low current shut-off options or any universal 5V USB charger to provide continuous voltage to devices. These items are not included in the kit and need to be purchased separately.

3. Setup of the kit

A simple setup example includes four anchors placed in a square configuration:

1. Identify the four anchors thanks to the stickers located under each beacon. A0 stands for anchor 0, A1 for or anchor 1, and so on. The tracker identifies as T0.

2. **Mount each anchor counterclockwise and at the same altitude** following the correct anchor number on a wall bracket or a tripod (not included). Make sure the antennas are facing the center of the workspace at 45°, to achieve good signal coverage, as shown in the figure.
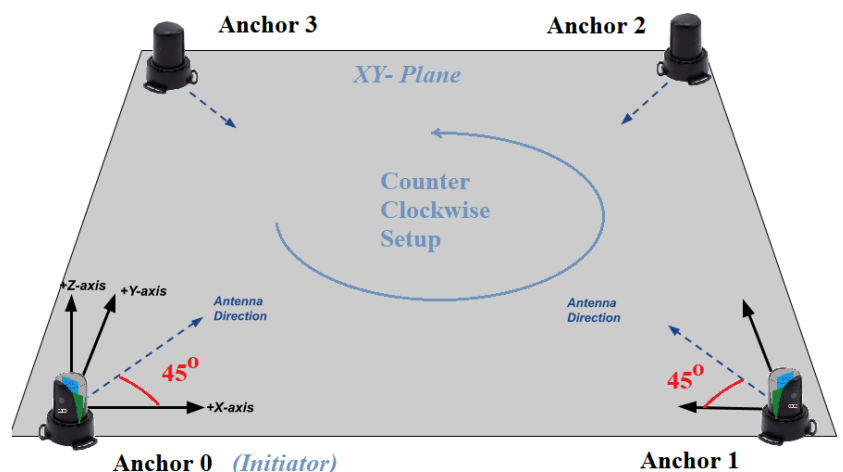

3. Connect the power cables to the anchors and **power the anchors in the following order**: start from anchor 0 and proceed with anchor 1, anchor 2 and finally anchor 3.

4. During the setup process, the **indicator LEDs** placed on the anchors will first blink blue and green before **turning continuous green** once the devices have rebooted and are working correctly. Refer to the User manual for more information on the visual notifications.

5. Download the Graphical User Interface (GUI) from the download section on the [Terabee Robot Positioning Web page](#) and install it on a PC. Connect the tracker to the PC with the communication cable and open the GUI.

6. Within the GUI, select the appropriate COM port, then click on the "connect" button: a message in the status bar acknowledges a successful connection.

Enable *Tracker output (1.)* checkbox to activate streaming of the tracker.

Enable *Show live positions (3.)* to preview the tracker and anchors positions in the grid.
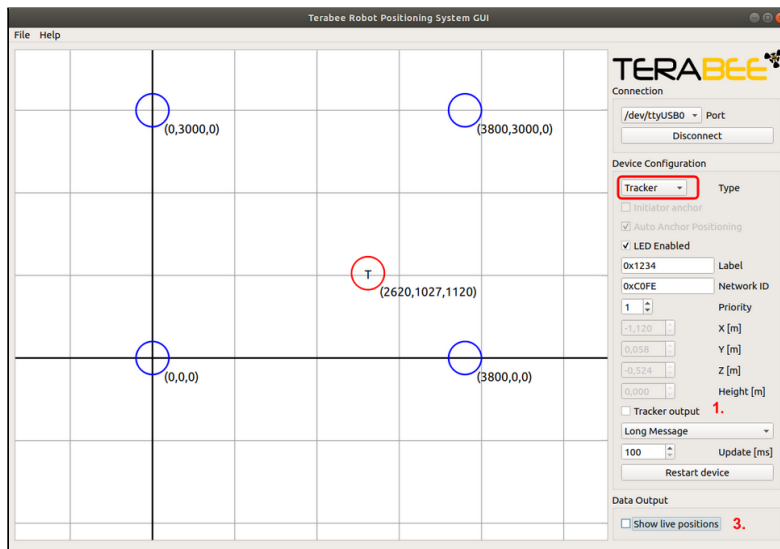
7. You can also send commands to the system using an HTERM emulation software. Please refer to the [Robot Positioning System user manual](#) for more details.

8. To activate tracker position output, send the command **11 01 45**. To disable it, send **11 00 42**. When streaming is active, the tracker will print out positioning data whenever connected, and the anchors are within range.
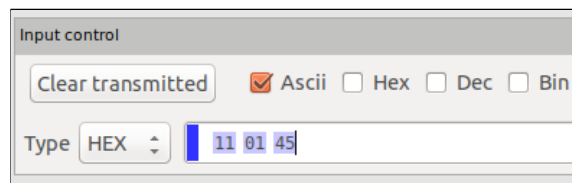
In the terminal window, the tracker prints a position output as displayed below:
*118234722,D0,0xC326,0,0,1600,1925,D1,0xCD0E,1300,0,1600,2824,D2,0x14B3,0,1800,1600, 1433,D3,0xC0FE,1800,1900,1600,1433,**-910,1157,375***

Each character string corresponds to a field listed in the table below:

Timestamp	Anchor number	Anchor ID	Anchor Position X	Anchor Position Y	Anchor Position Z	Ranging Distance	...	**Tracker Position X**	**Tracker Position Y**	**Tracker Position Z**

Beyond this quick setup, please refer to the [user manual](#) to customize the configuration of this solution, for instance, to place the anchors at different heights and or improve the accuracy of the tracker localization with a manual setup of the anchors' coordinates.

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