cx1

Fast

Each Codamotion cx1 unit measures the 3D locations of Codamotion active markers in real-time. Since the cx1 can uniquely identify each marker with 100% reliability, fully-labelled 3D marker trajectories are available for immediate analysis and display on a host computer. There are no missing or confused trajectories and no time-consuming operator intervention is needed to identify markers, making it very quick to use.

Setting up a Codamotion cx1 in a new location is both rapid and straightforward. It is fully portable and does not require a time-consuming field calibration process. A trained operator can collect data within minutes.

Precise

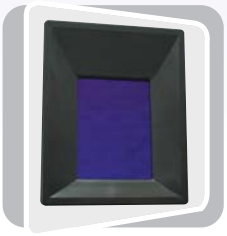
The unique Codamotion sensor design provides very fine position resolution, combined with a wide dynamic range. This means that very small detail (<0.05mm) in a movement can be resolved, even when superimposed on movements as great as several metres.

No change of set-up or calibration is needed between the recording of fine and gross movements. Whether using a small volume to capture close-up detail in fine resolution, or a wide volume to encompass large-scale movement, the pre-configured factory calibration is all that's required.

Versatile

The Codamotion cx1 is portable, robust, and easy to use. Its unique combination of features makes it highly versatile and ideal for a wide variety of applications including: clinical gait analysis, biomechanics, neuroscience (behaviour & perception), sports performance analysis, ergonomics, civil engineering, and veterinary analysis. Whatever area of study, the Codamotion cx1 allows users to capture 3D movement in real-time with unparalleled speed, accuracy, flexibility, and simplicity.

Extremely Wide Viewing Angle (Approx 80°).



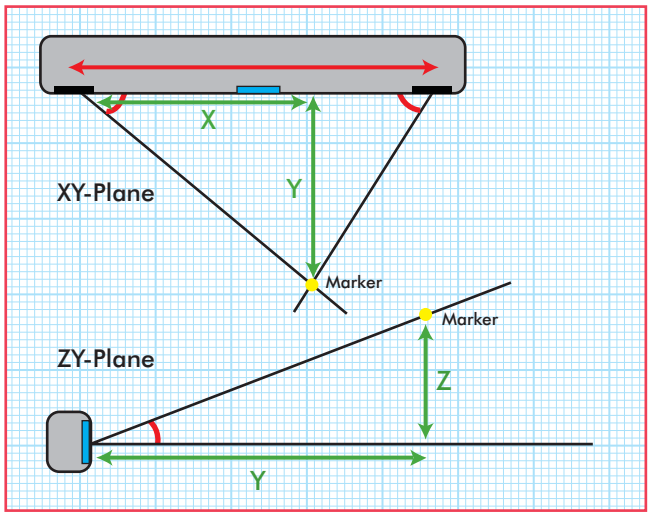
Simple, Secure Tripod Fixing.

codamotion

real-time MOVEMENT ANALYSIS

Specification

3D measurement from a single cx1 unit:



Resolution:
Standard deviation in position of a static marker at 3m range:
0.05mm (X and Z axes)
0.3mm (Y axis)

Resolution as fraction of field of view:
1:70,000 (X and Z axes)
1:12,000 (Y axis)

Sampling Rates:
Sampling rates are selectable from 1Hz up to the following limits for different maximum numbers of markers:
100Hz for 56 markers
200Hz for 28 markers
400Hz for 12 markers
800Hz for 6 markers

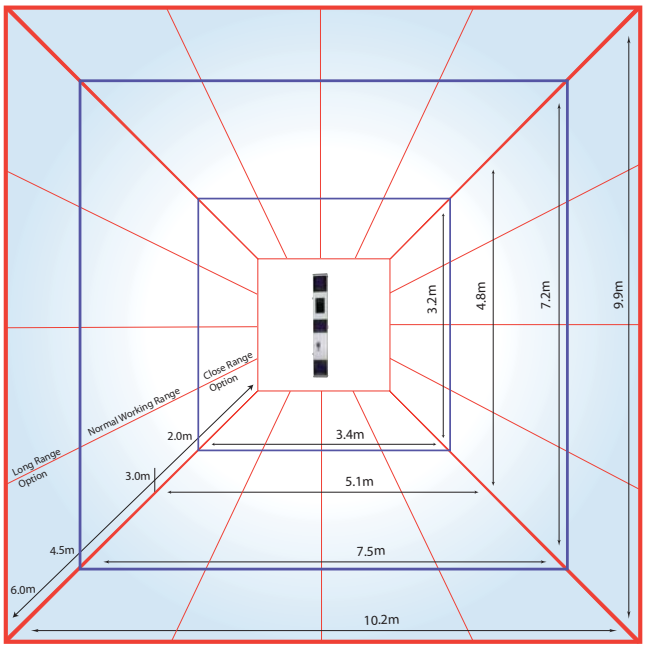
Marker flash duration at all sampling rates: 50 µs (1/20000s)
Marker sampling interval at all sampling rates: 170 µs (5.8 kHz)

Real-time Latency:
5 - 10 milliseconds standard latency.
As low as 0.5 milliseconds for applications using the Coda SDK.

Dimensions LxWxD:
800mm x 112mm x 81mm

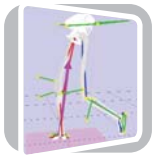
Weight:
5kg

Capture Volume:
The capture volume expands at a rate of approximately 1.6 times the distance from the Coda unit. Long range and short range cx1 available on request.



Hardware Solutions

With Codamotion, you can enjoy a one stop solution. This fully integrated and expandable package includes everything from the kinematic system to configurable options which accommodate a wide variety of peripheral systems, such as force transducers or EMG systems.



Flexible Software

Real flexibility comes from a wide range of software packages, from data acquisition to data analysis and reporting. You can even write your own programs to interface with the Codamotion system, giving you direct real-time access to the data.

Service & Support

Leading edge technology is backed up by a knowledgeable team who are committed to offering you the best service possible. Our Customer Support Service is run by support engineers with more than 20 years experience.

Charnwood Dynamics Ltd.
Victoria Mills, Fowke Street, Rothley, Leicestershire, LE7 7PJ, United Kingdom
Tel: +44 (0)116 230 1060 Fax: +44 (0)116 230 1857
Email: info@codamotion.com Website: www.codamotion.com