

3DOptix

Lab in a Box

What is the Lab in a Box setup

Imagine you can **BOX** your entire optics lab in a robust, space-efficient stationary or mobile structure

The Lab in a box setup, provides electro-optics companies, laser companies, microscopy companies and researchers the ability to build a three-dimensional optical bench that can carry the entire optical setup, including the light source, the experimental apparatus itself and the measuring tool - all in one rigid structure that can be stationary or mobile.

The problem with the existing solutions

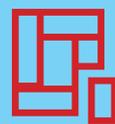
- Lack of off-the-shelf products to exercise the lab in the box setup.
- The existing products are complex, stationary, not space-efficient and very expensive.
- The alignment process is tedious and makes it impossible to carry the setup from one lab to another without the need to run the long alignment process after every movement.

3DOptix is different



Precise

All optical elements are centered exactly above the fixation location. Dowel pins precisely define the location and position of each optical mount.



Modular

A wide variety of structural elements provides you with a modular platform.



Compatible

3DOptix platform is compatible with any other commercial optical or optomechanical component.

Why 3DOptix Lab in a Box?

With 3DOptix Breadboard™ platform you can build any rigid three-dimensional structure that can precisely hold your light source, the experiment itself and your measuring tools in one structure.

The Breadboard™ building blocks together with 3DOptix mounts provide accurate mounting locations for your standard optical elements and tremendously reduces your alignment work when your setup is stationary or mobile.

The key advantages:

- The Breadboard™ basic elements provide you with endless options to assemble any three-dimensional apparatus or an optical bench.
- Discrete mounting locations - with 3DOptix it is easy to register, accurately, any mount to a mounting location with dowel pins and screws. There is no need to manually measure the distance between the optical elements.
- Reducing your alignment work - discrete mounting locations plus minimal degrees of freedom will reduce your alignment work.
- Fast and accurate assembly of multiple and synchronized setups across the optical table or your prototype bench.
- 3DOptix optomechanics components are designed and manufactured under high tolerance constraints in order to achieve high precision capabilities.
- Friendly and easy to use assembly instructions for many reference designs.
- 3DOptix discrete capability is perfect to easily identify spatial and temporal locations for continuous-wave and ultrashort laser setups.
- 3-dimensional custom apparatus, such as microscopes and multiple pulses apparatuses are easy to design and build.



Agility

Easy to make any structural modification simply by adding or removing 3DOptix modular components, even while the setup is up and running. There is no need for any alignment work when you position or reposition the optical elements in the system.



3-Dimensional

Easy to build any three-dimensional structure for rapid optical prototyping or for any optical applications.



Discrete Mounting locations

extremely easy to measure the distance between the optical elements.

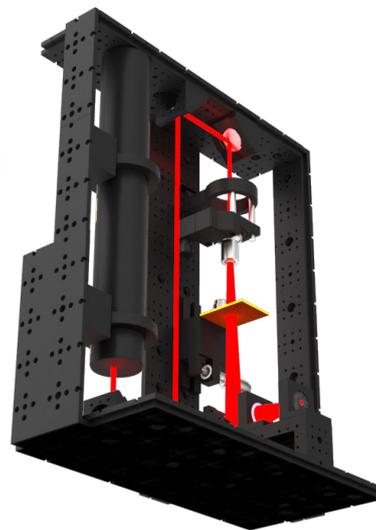
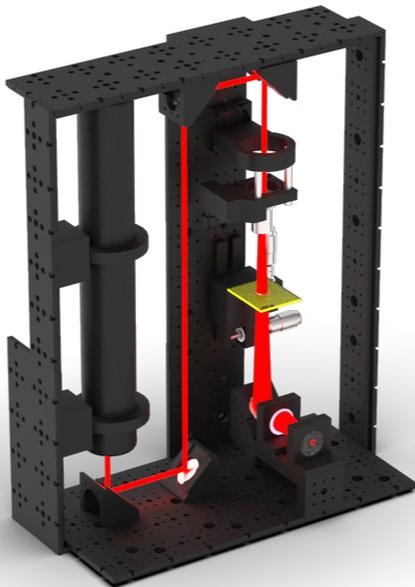


Mobile

Can easily be carried from one lab to another without the need to run long realignment process.

3DOptix offering

- 3DOptix Breadboard™ structure components comes in different sizes to accommodate the design of any three-dimensional structure.
- 3DOptix optomechanics components can be purchased individually or as part of a predefined reference design or a bundle.
- Comparing to the other Cage platforms, 3DOptix Virtual Cage system has the best price-to-performance ratio.



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