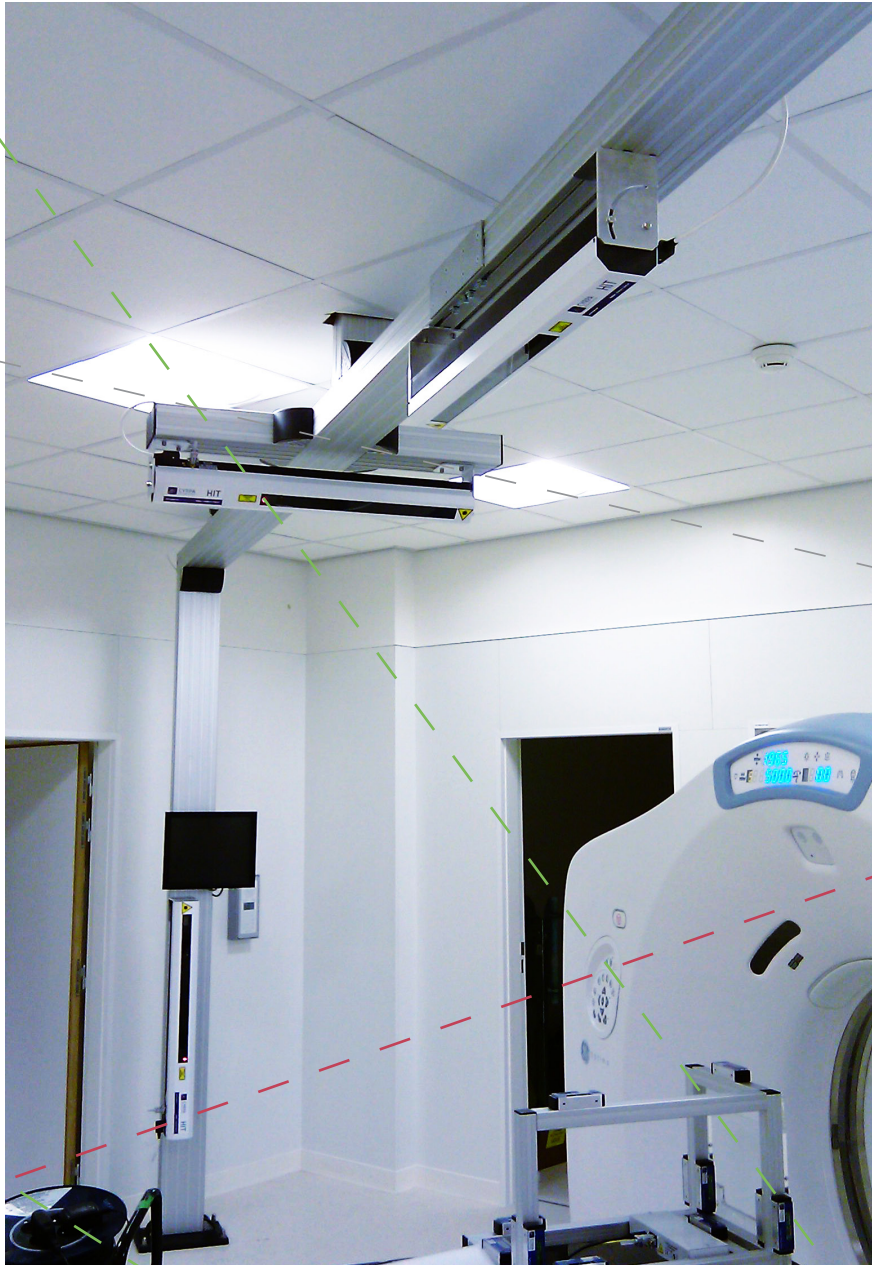




**CYRPA**  
REVOLUTIONARY ACCURACY



**INNOVATIVE LASER  
POSITIONING SOLUTIONS IN  
RADIATION ONCOLOGY**

**[WWW.CYRPA.COM](http://WWW.CYRPA.COM)**

# TREATMENT ROOM

## HITM : FIXED MOTORISED LASERS

Adapted to each radiation treatment room, the HITM positioning system differentiates itself by using lasers that allow treatment of the patient with greater accuracy (**0,1mm**).

Additionally, it **performs a fast and automatic adjustment of the lasers**.



The HITM consists of 3 fixed motorised laser boxes :  
*2 lateral lasers, each generating a cross*  
*1 sagittal laser, generating a line*  
*It is possible to add other laser lines, also in red or green*

Each laser can be red or green, switchable at any time. The system also includes a tablet PC that allows each laser beam to be controlled remotely through a wireless network.

## DOUBLE DIODE

- **ADAPTABILITY**
- **COLORS : RED + GREEN**
- **THERE IS ALWAYS A DIODE IN BACK UP**

## MOTORISED LASER BOX

Dimensions (HxWxD): 220mm x 205mm x 110mm

Weight: 4kg

Power Supply: Internal 110/230 VAC

Consumption of less than 500mA

Temperature: 15-30 °C

Type of control : Motorised

Remote control via a wireless network interface and a tablet PC

**Accuracy of adjustments at isocenter: +/- 0,1mm**

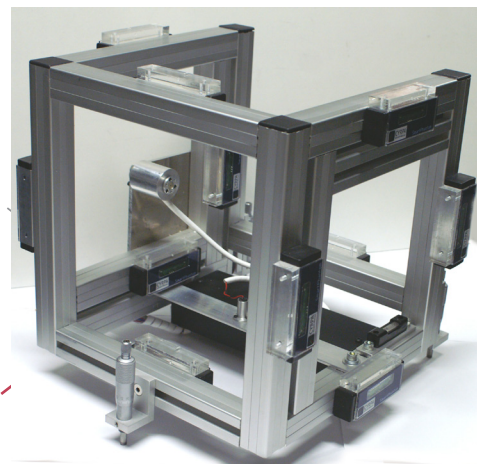
**STABLE HIGH PRECISION  
SOLUTION +/- 0,1MM**

**PROTON TREATMENTS  
STEREOTACTIC TREATMENTS  
LINAC TREATMENTS**

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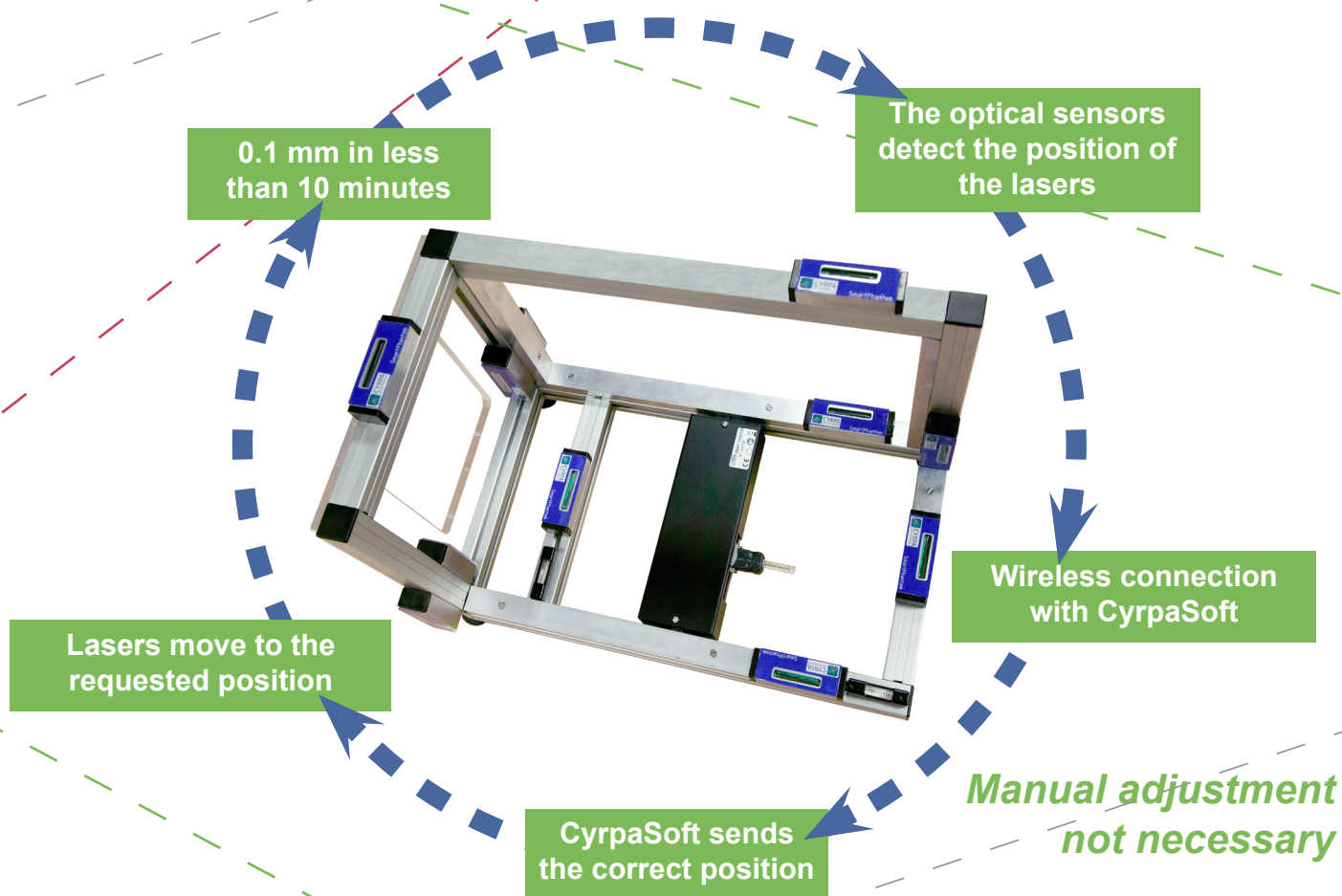
# AUTOMATIC CALIBRATION WITH SMARTPHANTOM

CYRPA is the only supplier worldwide to offer a complete automatic calibration pointing to the exact isocenter with the SmartPhantom. The SmartPhantom is a device patented by CYRPA to allow the automatic calibration either in the treatment room (SmartPhantom RT), or in the virtual simulation room (SmartPhantom CT).



**REAL AUTOMATIC CALIBRATION: CLICK & GO**

## COMPLETE CYCLE OF LASER CALIBRATION



### SMARTPHANTOM RT

Material: aluminum structure with adjustable feet with 15 high precision optical sensors  
3 adjustable micrometric feet  
Dimensions (mm): 380 x 300 x 300  
Weight (kg): 6.3  
Wireless connection with RF  
Plexiglas markers  
Internal positioning lasers

### SMARTPHANTOM CT

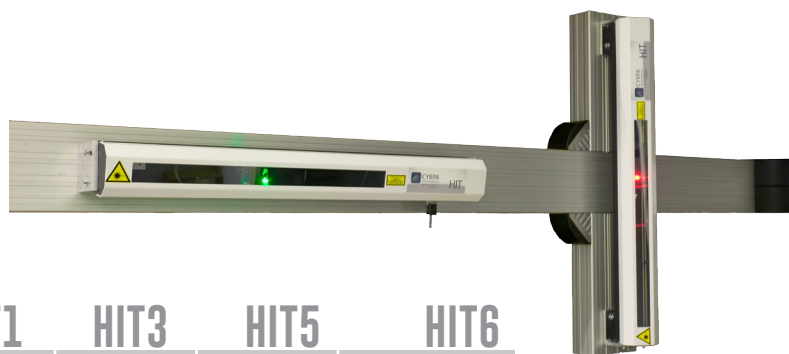
Material: aluminum structure with 12 high precision optical sensors  
3 adjustable micrometric feet  
Dimensions (mm): 520 x 300 x 300  
Weight (kg): 5.2  
Wireless connection with RF  
Plexiglas markers

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# SIMULATION ROOM

## MOVING LASERS HIGH IMPACT TECHNOLOGY: HIT 1 - HIT 3 - HIT 5 - HIT 6

The CYRPA HIT lasers systems present the latest innovation in virtual simulation. With different configurations possible, the HIT virtual simulation lasers have been designed with the user and patient in mind. With the touch of a button, the user can select a green or red diode laser line, each with a laser line accuracy of  $\pm 0.1\text{mm}$  allowing a faster and more accurate operation.



### CONFIGURATIONS:

|                       | HIT1 | HIT3 | HIT5              | HIT6 |
|-----------------------|------|------|-------------------|------|
| MOVING LASER BOXES    | 1    | 3    | 5                 | 6    |
| MOTORISED LASER BOXES | 2    | 2    | no couch movement |      |

### MOVING LASER BOX

Dimensions (HxWxD): 920mm x 105mm x 90mm

Weight: 5kg

Power Supply: Internal 110/230 VAC

Consumption of less than 500mA

Temperature : 15-30 °C

Type of control : Motorised

Remote control via a wireless network interface and a touchscreen

Accuracy of adjustments at isocenter :  $\pm 0.1\text{mm}$

Length of travel: 540mm

**DOUBLE DIODE  
AUTOMATIC CALIBRATION  
ACCURACY  $\pm 0.1\text{mm}$**

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# MRI ROOM

## HIT SINGLE DIODE LASERS FIXED WITH MANUAL ADJUSTMENT



MR Conditional

The HIT Single Diode includes only one diode per optical head, and it can be either red or green.

The adjustment of laser lines on all three movements (rotation, translation and tilt) is possible **without opening the laser cover**. This allows a better **stability** of the adjustments. Indeed, when putting back the cover after the adjustment is done inflicts a constraint to the lasers and unsettles them. With the CYRPA HITSD, only a simple wrench is necessary to adjust the laser, from the outside, without removing the laser cover.



**SIMPLE AND STABLE  
ADJUSTMENT WITHOUT  
REMOVING THE COVER  
FOR ALL 3 MOVEMENTS**

**MANUAL FIXED LASERS  
CERTIFIED FOR  
AN MRI ENVIRONNEMENT  
UP TO**  
**3T**

The HITSD fixed manual lasers are compatible in any kind of room, but those for MRI are supplied with compatible supports.

**A SIMPLE AND STABLE SOLUTION  
FOR YOUR MRI ROOM**

## HITSD: MANUAL LASER BOX

### MANUAL BOX

Dimensions (HxWxD) : 220mm x 205mm x 110mm  
Weight : 2kg  
Power supply : Internal 11/230 VAC  
Consumption of less than 500mA  
Temperature : 15-30°C  
Type of control: manual  
Adjustable without removing the cover

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# STATICPHANTOM

## THE UNIVERSAL TOOL FOR LASER ALIGNMENT CONTROL

Once the StaticPhantom is set-up on the CT couch it is used to visually verify the precision of the alignment of lasers.

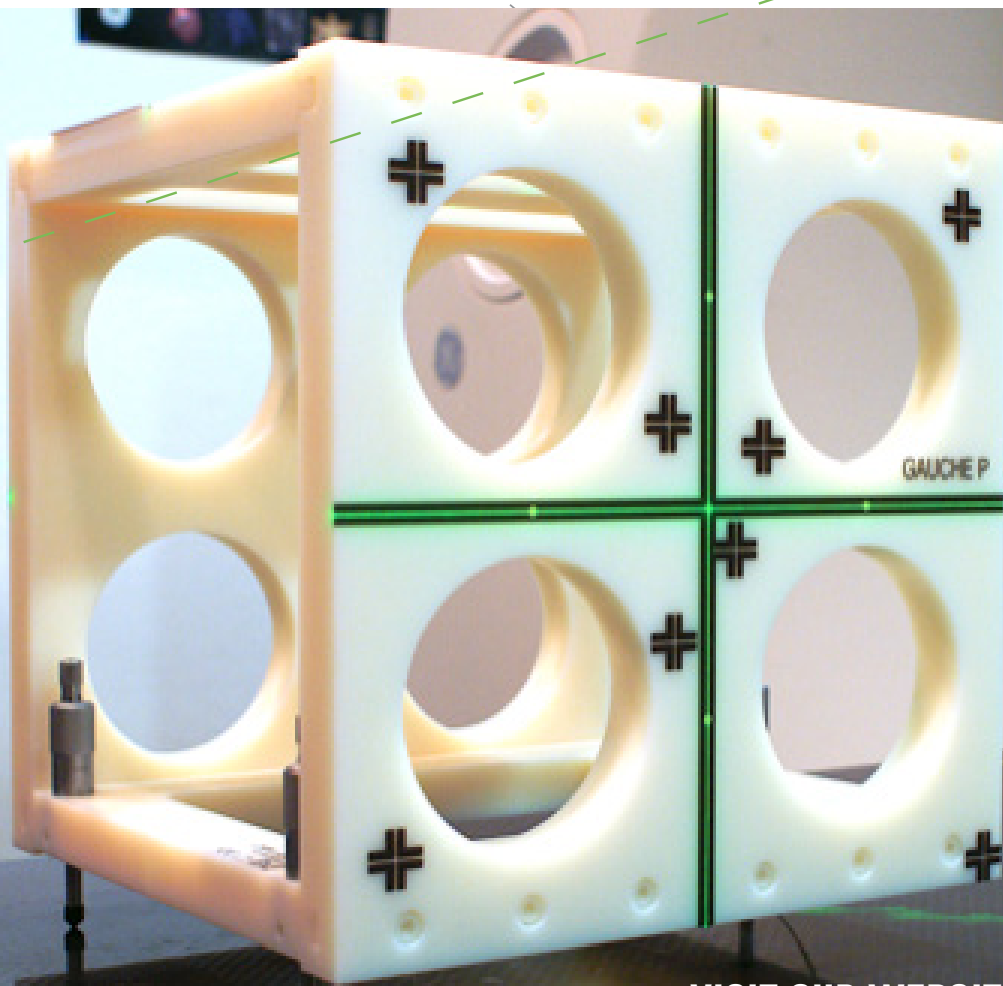
Marks on the device allow you to check the movement of the lasers no matter the brand of the lasers. The precision of the position of the marks is 0,1 mm.

CyrpaSoft includes a patient file to operate the automatic control of the positions with the StaticPhantom. This patient file is supplied with the StaticPhantom to be used with your system.

## ADVANTAGES

- Multiple recessed alignment marks to perform calibration of frontal, transversal and sagittal lasers
- Can be used to align moving lasers, from CYRPA or other laser brands
- Includes alignment holes and three adjustable micrometric feet for leveling the unit on a couch
- The size of the StaticPhantom allows a more precise verification of the straightness of lines over a bigger volume.

## DAILY QA OF THE ALIGNMENT AND MOVEMENT OF THE LASERS WITH AN EASY AND FAST SET UP



### STATICPHANTOM

Material: acrylic

Dimensions (mm): 320x300x300

Weight (kg): 6

9 checkpoints

**LOW BUDGET  
SOLUTION**

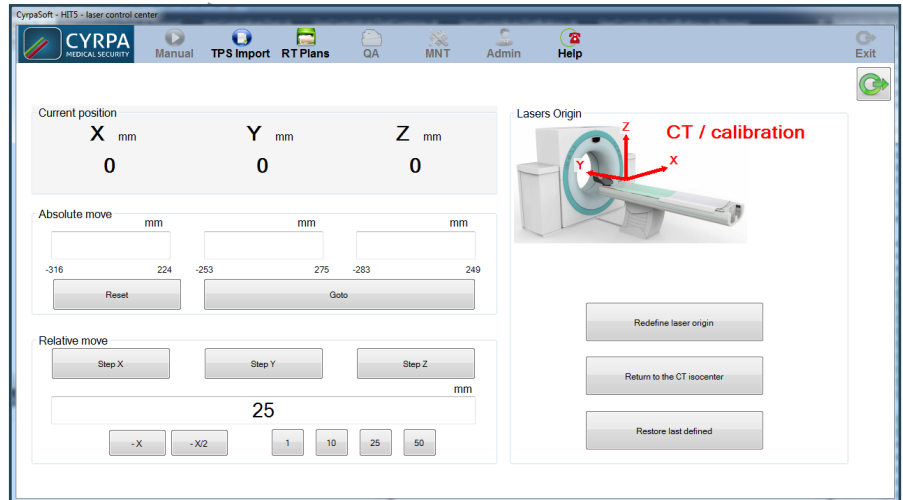
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# CYRPASOFT

**TPS Connection**

**DICOM**

**TumorLOC**



**CYRPASOFT** is a software created by CYRPA to run the lasers. CYRPASOFT can handle the mains format files and can be configured to import data from many different TPS systems. It easily allows to:

- Change colors with the option double diode
- Move lasers from a position X, Y, Z manually requested (HIT) or imported from a TPS (HIT)
- Reboot lasers

## HARDWARE IT CONFIGURATION CAN BE CUSTOMIZED

Compatible with the different workflows: relative and absolute patient marking. In relative mode, the zero laser can be redefined on an already existing marking.

## CYRPASOFT INCLUDES A MODULE FOR THE AUTOMATIC CALIBRATION WITH THE SMARTPHANTOM AND THE MOVEMENT TEST FUNCTION WITH THE STATICPHANTOM

# DIODES TECHNICAL SPECIFICATIONS

### RED LASER

Type : Diode  
Wavelength : 635nm  
Maximum output power : < 1mW  
Laser class : Class 2  
Line width : < 1mm  
Line length : > 3m

### GREEN LASER

Type : Diode  
Wavelength : 532nm  
Maximum output power : < 1mW  
Laser class : Class 2  
Line width : < 1mm  
Line length : > 3m

DIODE AVAILABLE IN BLUE UNDER REQUEST

**ALL DEVICES CARRY A ONE-YEAR DIRECT CYRPA WARRANTY.**

CYRPA products are Class 1 according to the European Directive 93/41 relative to medical devices.

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# INNOVATION

## YOUR HIGH PRECISION LASER SOLUTION

**ANY CONFIGURATION IS POSSIBLE:  
COMBINE FIXED, MOTORIZED AND MOVING LASERS**

**AUTOMATIC  
CALIBRATION WITH  
SMARTPHANTOM**

*Done in around 10 minutes*

**PATIENT SAFETY**

*Quality certificate delivered  
at the end of the automatic  
calibration*

**TIME SAVINGS**

*Thanks to the automatic  
calibration*



**CYRPA**

REVOLUTIONARY ACCURACY

**Double Diode**

*Red AND green for each  
laser line, switched in  
a second by the operator*

**+/- 0,1 mm accuracy  
at the isocenter**

*Precision at the patient  
positioning*

**CUSTOMIZED  
SOLUTIONS**

*Adapted to the needs  
of each user*

**DOUBLE-CHECKED ACCURACY**

*With two encoders internal and external*

**WORLDWIDE PRESENCE:  
CONTACT US TO KNOW YOUR LOCAL DISTRIBUTOR**

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