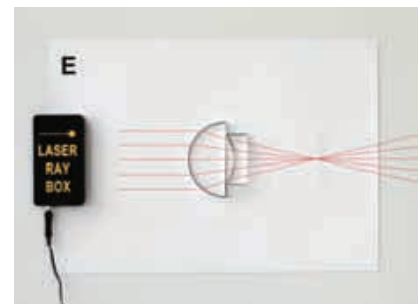
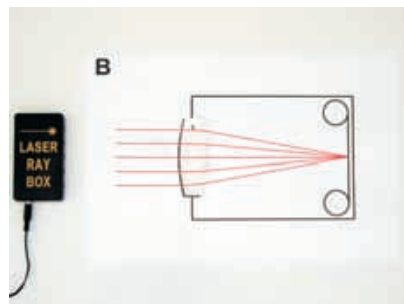
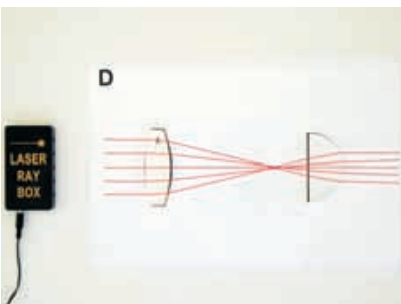
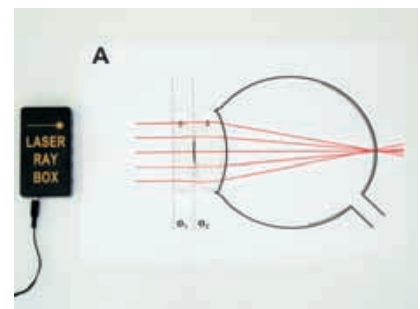
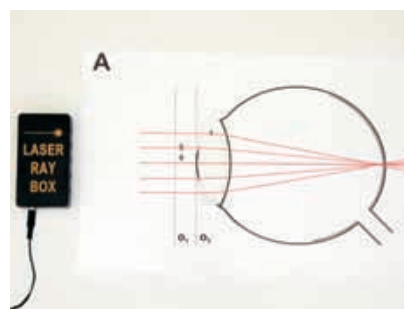
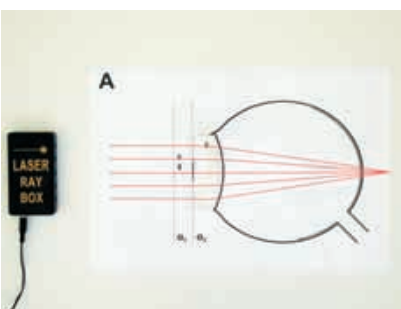
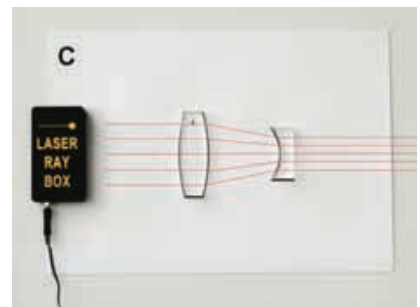
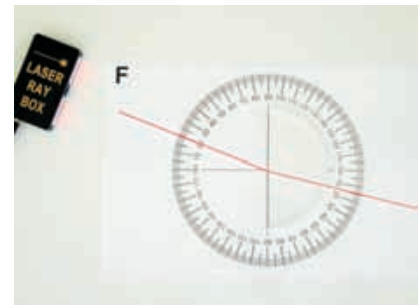
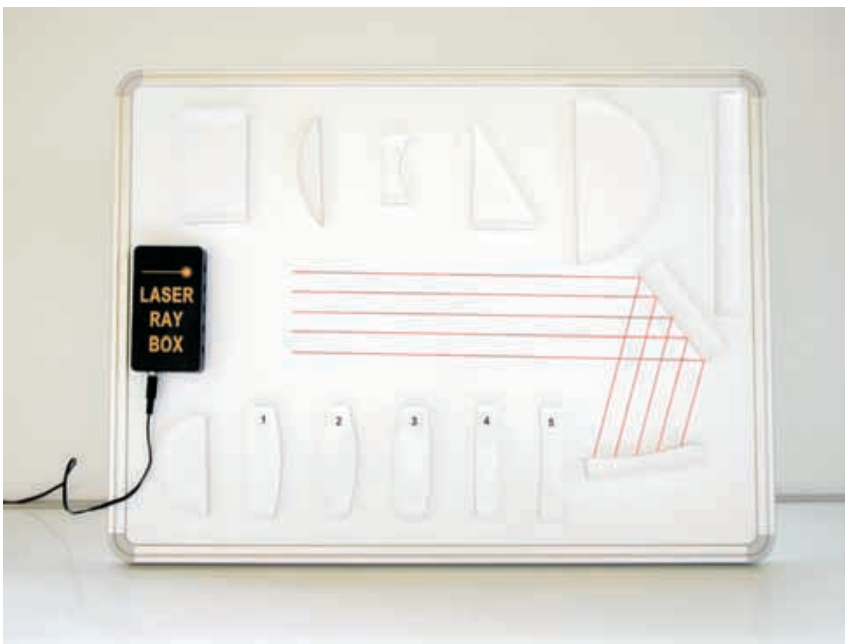


RAY OPTICS DEMONSTRATION SET and LASER RAY BOX

The set up was designed for simple and clear demonstration of the geometrical optics basic principles. Laser diode - highly collimated light source is used as a basic element of the LASER RAY BOX. In that way the quality of teaching is improved and offer us new possibilities in comparison with the classic incandescent lamp. Moreover the demonstration of beams passing through the combination of several optical elements is possible. Such a solution enables the effective demonstration and modelling of basic optical devices. A classic light source cannot be used for such a range of examples. Another remarkable advantage arises from very low demand for room light conditions. RAY OPTICS DEMONSTRATION SET using LASER RAY BOX can be used in standard classrooms without any additional room darkening. Provided that you have similar set including standard incoherent light source - we would like to offer an improvement on the basis of a new laser light source.



Laser Ray Box

Laser Ray Box is a laser light source with a wavelength of 635 nm and power of each laser is 1mW. Using 5 laser beams collimated by a cylindrical lens results in five parallel clearly visible line light traces. The bottom of the Laser Ray Box is magnetic which enables to use the Laser Ray Box together with the magnetic board, sheets and optical models (from the above mentioned Ray Optics Demonstration Set).

The set contains a special shield device which allows to cover any combination of source's laser beams.

Battery box is also included (2xAA)

AD/DC 220V (or 110V)/3V

Ray Optics Demonstration Set

Optical component models (14pcs) - allow very good demonstration and visualization of the following optical effects :

- transmission of the light through the convex (concave) lens
- transmission effect of an optical prism
- reflection on the planar (convex, concave) mirror
- refraction of the light
- index of refraction values and others.

The set up also demonstrates the function of healthy, short-sighted and far-sighted vision and the correction of these aberrations by glasses. Furthermore the set up demonstrates the function of both Galileo and Kepler telescopes, as well as photo camera, etc. The effect of the lens spherical aberration and its correction. The demonstration of absolute reflection in the optical fiber are interesting and easy to demonstrate as well.

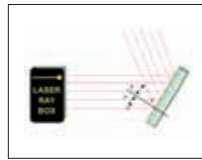
Example sheets - for very simple and quick preparation of demonstration. The demonstration is done quickly if the desired objects are located on assigned positions on the sheet.

These example sheets includes:

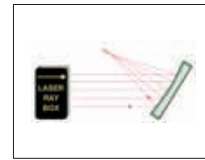
- A - model of the human eye
- B - photo camera
- C - Galileo telescope
- D - Kepler telescope
- E - effect of the spherical aberration of a lens, and its correction
- F - refraction and reflection demonstration sheet

Easy handling: The bottoms of the optical elements and example sheets are magnetic. The size of the board enables easy transportation so that you can choose its location right before demonstration.

Examples:



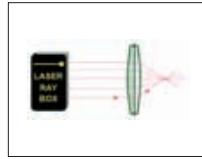
refraction on the planar mirror



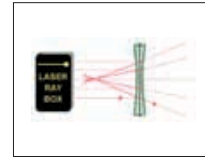
refraction on the concave mirror



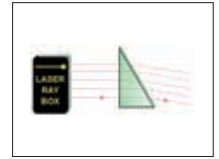
refraction on the convex mirror



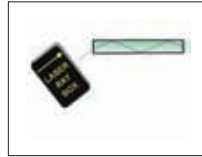
convex lens



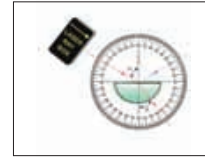
concave lens



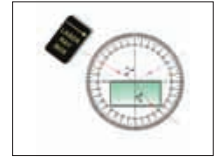
transmission effect of an optical prism



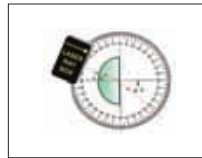
absolute reflection in the optical fiber



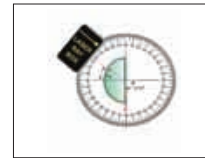
refraction



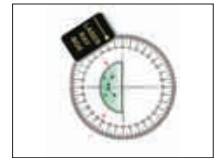
refraction



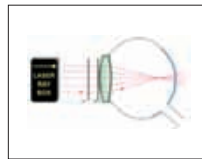
refraction



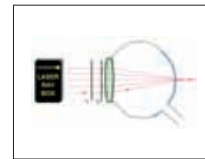
limited angle



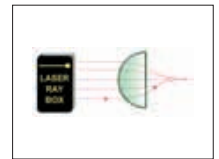
absolute reflection



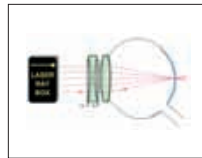
short-sighted eye



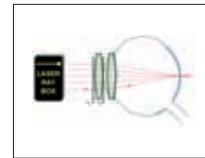
long-sighted eye



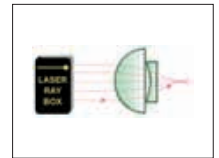
spherical aberration



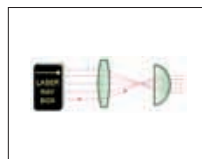
correction of short-sighted eye



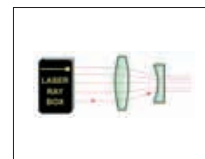
correction of long-sighted eye



correction of spherical aberration



Kepler telescope



Galileo telescope

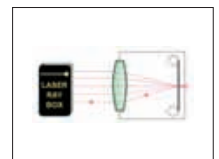
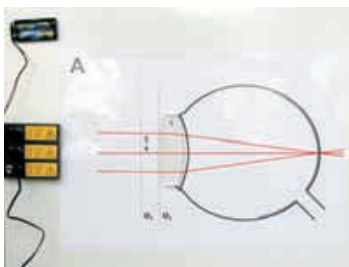
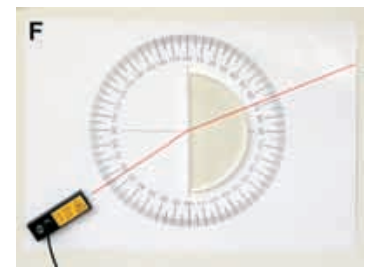


photo camera



**LASER
LINE
BOX
NEW!**



Looks like a Laser Ray Box, but only with one independent laser module. You can use the Laser Line Box either individually or by connecting the individual member (connecting cable and battery box are supplied in each LLB) as a multiple - ray source of light.