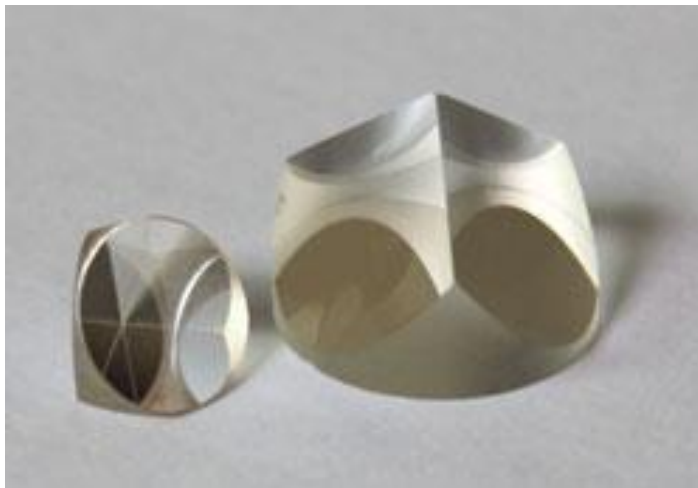
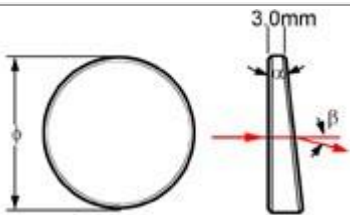
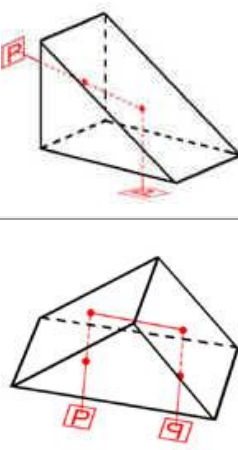
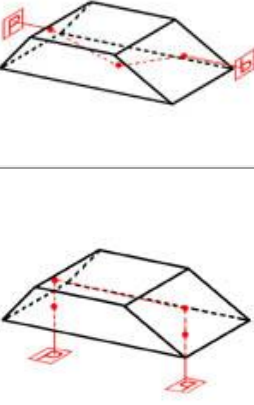
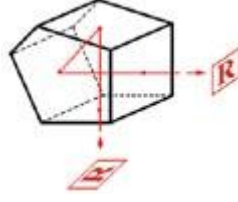
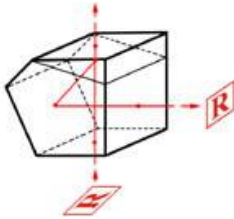
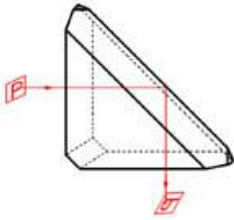
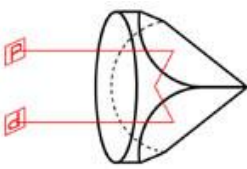
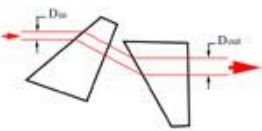


Prism

Prisms are blocks of optical material with flat polished sides arranged at precisely controlled angles to each other, which deflect, deviate and rotate beams of light as well as dispersing their wavelengths. Simphoton offers many types of high precision prisms as follow.



Prisms	Material	Illustration	Properties and Application
Wedge Prism	BK7 or Fused Silica		Optical wedge (Wedge Prism) is a wedge shaped piece of glass which refracts light rays, thus establishing a critical angle.
Right-Angle Prism	BK7 or Fused Silica		Right angle prism is deviating or deflecting a beam of light with 90° or 180°. It is often used in telescope, periscope and other optical system. Furthermore, Laser grade right angle prism is also available by Simphoton. Please see the following chapter "laser optics" for more information.
Dove Prism	BK7		Dove prism has two applications. The main application is used as a rotator. It can rotate an image but without deviating the beam. And when the prism is rotated about the input parallel ray through some angle, the image rotates through twice that angle. It is very important that the application must be used with parallel or collimated beam and the large square reflective surface should be kept very clean. Another application is used as a retroreflector. For this application it perform as a right-angle prism.
Penta Prism	BK7		Penta prism can deviate an incident beam without inverting or reversing to 90. The deviation angle of 90 is independent of any rotation of the prism about an axis parallel to the line of intersection of the two reflecting faces. It is commonly used in Plumb Level, Surveying, Alignment, Rangefinding and Optical Tooling.

Beamsplitter Penta Prism	BK7		By adding a wedge and with partial reflective coating on surfaces S1, it can be used as a beamsplitter. It is often used in Plumb Level, Surveying, Alignment, Rangefinding and Optical Tooling.
Roof Prism (Amici Prism)	BK7		Roof prism is combined with a right angle prism and a totally internally reflecting roof and they are attached by them largest square surfaces. It can invert and reverse an image, also, deflect the image 90°. Therefore, it is often used in terrestrial telescopes, viewing systems and rangefinders.
Corner Cube Retroreflectors	BK7		It has three mutually perpendicular surfaces and a hypotenuse face. Light entering through the hypotenuse is reflected by each of the three surfaces in turn and will emerge through the hypotenuse face parallel to the entering beam regardless of the orientation of the incident beam. For its special performance, it is often used to the distance measurement, optical signal process and laser interferometer.
Anamorphic Prism	SF11		These two prisms can expand or contract the beam in one direction without any changes in the other direction. By adjusting the angles among the incident beam and two prisms, the shape of the beam can be changed. It is very easy to turn elliptical beam into circular beam.