

pinhole photography camera

# TOSCA

#toscapinhole #pinholetosca

user manual

## **TOSCA**

We present the TOSCA, a handmade camera, made out of ordinary materials, customizable, reusable, unpredictable, organic, human...

The TOSCA is completely handmade.

Most of the materials are recycled, recyclable or reused.

TOSCA (portuguese): adjective; means awkward or clumsy.

## ***unpacking the TOSCA ([watch video](#))***

Opening the TOSCA for the first time, you will find the following items inside:

- 1.A black cardboard mask
- 2.A cork advance wheel
- 3.Two rubber bands
- 4.Four strips of sticker black velvet
- 5.A roll of film (if it was included in the pack you purchased)

## ***pinhole photography***

Pinhole photography is an alternative photographic technique in which the camera is stripped of any “unnecessary” accessories, returning to its absolute essence: the *camera obscura*.

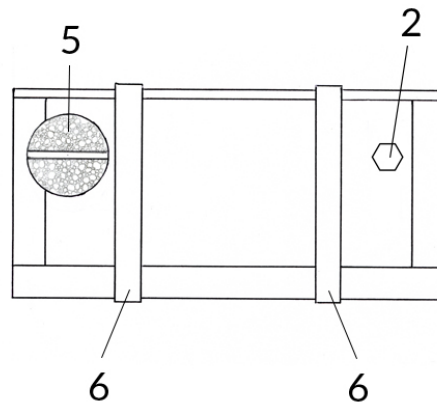
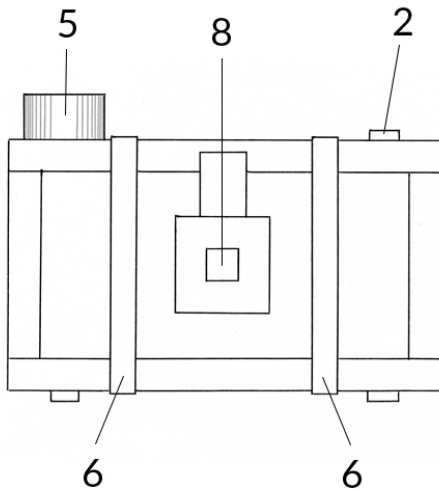
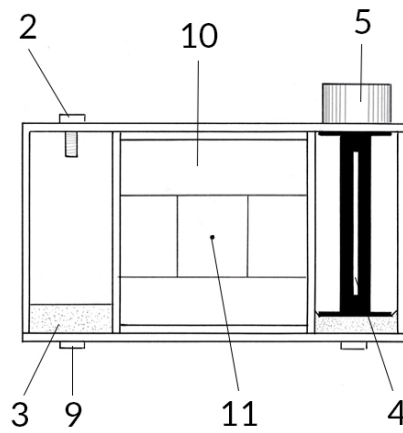
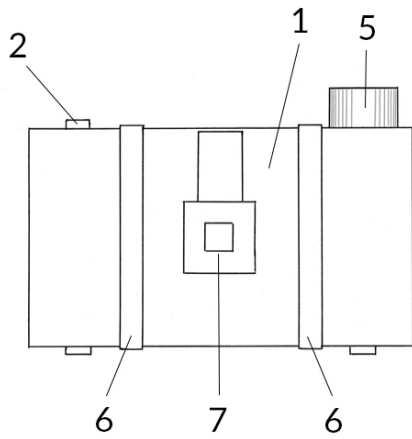
The camera obscura is a light tight compartment, with a tiny pinhole made in one of its sides. As light passes through the pinhole, it projects an inverted image on the opposite side of the *camera obscura*.

To capture the projected image, a light sensitive material is needed. The TOSCA works with medium format film.

**film**

TOSCA works with medium format films, also known as 120 format films.

It is possible to use any kind of film – negative or positive (slide), color or black and white, of any speed (ISO).



## ***load the film ([watch video](#))***

ATTENTION: ALWAYS LOAD YOUR FILM IN SUBDUED LIGHT, ESPECIALLY OUT OF BRIGHT SUNLIGHT

With the back plate (1) removed:

1. unscrew the top screw (2).
2. insert the roll of film into the left compartment (bottom first, pushing down the sponge (3), until the film is fitted on the bottom screw (9) Do not force!). Once inserted, screw the top screw (2) back to its place.
3. pull the lead of the film to the right and insert the tab end into the slot of the right side take up spool (4). the black side of the film paper should be facing the pinhole.
4. place the cork advance wheel (5) on the top of the camera. Wind the take up spool (4) with the cork advance wheel (5) a few times to make sure that the film is properly advancing. It should transport smoothly and straight, not on an angle
5. replace the back plate (1) and the rubber bands (6). Open the back screen (7) and wind the advance wheel. Looking through the red screen while winding, you will see a series of dots passing by, indicating that the first frame is coming up. Keep winding carefully until the number 1 appears on the screen.

## ***taking pictures with the TOSCA***

1. Place the camera on a steady base (in case you want a sharp picture with no motion blur), and point it in the direction you wish to photograph. The TOSCA has no viewfinder. The framing of the picture is made directly by the user's imagination. This is one of the key features of the TOSCA! Enjoy it!
2. Open the shutter (8) and close it again at the end of the chosen time (see chapter "Calculating Exposure")
3. Wind the film with the advance wheel (5) until the next number is shown on the back screen (7).
4. if you wish, you can create multiple exposures, by choosing not to wind the film, thus exposing several photographs onto the same frame (many times this occurs accidentally, by forgetting to wind the film)
5. The TOSCA takes 12 pictures per film.

## ***unload the film***

ATTENTION: ALWAYS UNLOAD YOUR FILM IN SUBDUED LIGHT, ESPECIALLY OUT OF BRIGHT SUNLIGHT

1. once the film is finished, wind it with the advance wheel (5) until it is released from its spool. In most cases you can see the word "exposed" passing through the back screen (7).
2. remove the rubber bands (6), take off the back plate (1), and the advance wheel (5). Remove the film roll.
3. very gently, fold in the tab, and seal the film roll with the strip.
4. unscrew the top screw (2) and remove the take up spool (4) of the left compartment. Replace it in the right compartment, ready to take up the next roll of film. The take up spool should always be kept for the next roll.

## ***calculating exposure***

To take a photograph, the right Exposure Value (brightness of the picture) should be established for each situation. This value is directly connected to the amount of light that hits the film.

In pinhole photography, the only way to control the Exposure Value for a given film speed (ISO) is to change the shutter speed. The less the available light, the slower the shutter speed should be, and vice-versa.

If there is no lightmeter available, follow the table on the next page. Considering that a bright sunlit scene is the brightest possible, the table presents the estimated shutter speeds for that light condition and lower.

The pinhole in your TOSCA is equivalent to a f/128 aperture approximately. Also, always pay attention to the ISO speed of your film.

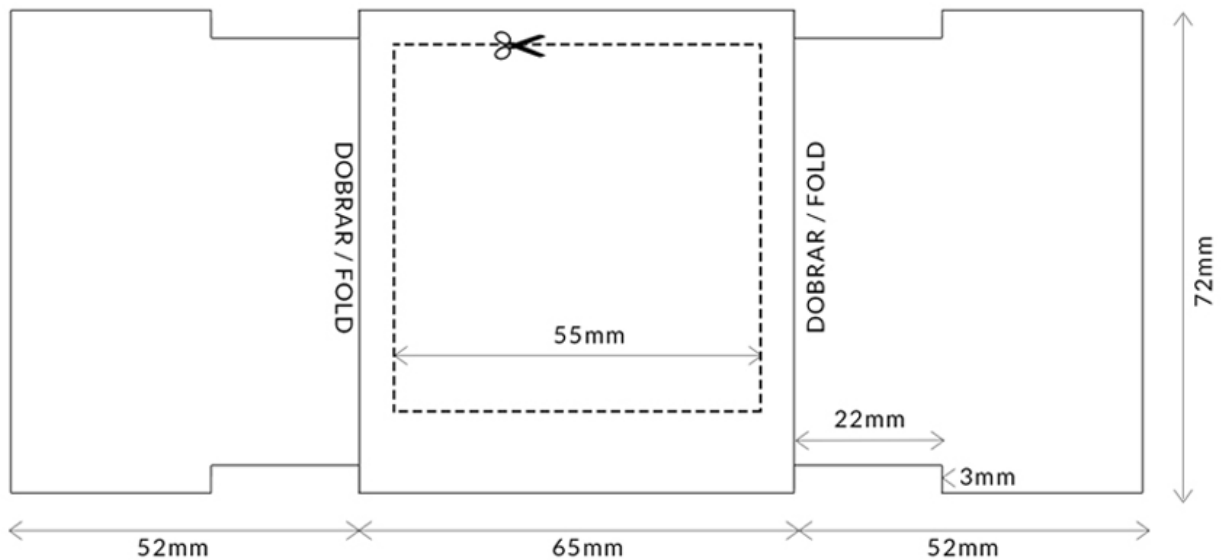
(reading times on the table " = seconds | ' = minutes)

	ISO 100	ISO 200	ISO 400
bright sunlight	1/4" - 1"	1/8" - 1/2"	1/16" - 1/4"
sunlight, with a slight haze	1" - 2"	1/2" - 1"	1/4" - 1/2"
partly cloudy	2" - 8"	1" - 4"	1/2" - 2"
cloudy	8" - 30"	4" - 15"	2" - 8"
shade / sunset	8" - 60"	4" - 30"	2" - 15"
indoors daylight	1'00" - 4'00"	30" - 2'00"	15" - 1'00"
indoors lighting	4'00" - 15'00"	2'00" - 8'00"	1'00" - 4'00"

### ***creating a border mask***

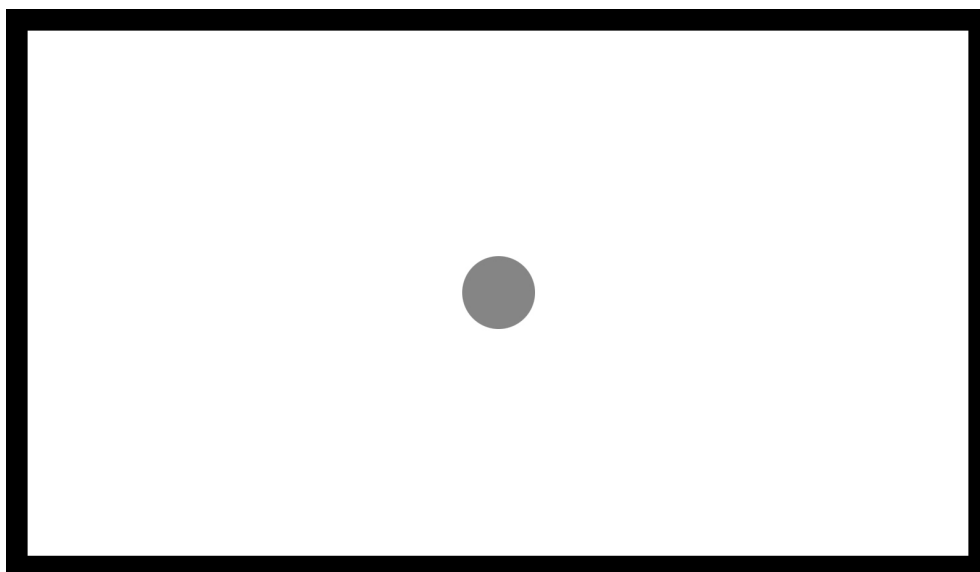
To create a border mask for your pictures, cut the square marked on the black cardboard (9). You can also make creative masks: rounded, irregular, shredded, geometric, etc. Once the mask is cut, place it in the *camera obscura* (10) before loading the film.

Using the provided dimensions, you can make other border masks.



### ***lightproof the back plate***

On many occasions, the TOSCA allows some light to get in, creating effects on the images, which might not be desired. This happens specially if you allow the TOSCA to be under the sunlight or other strong lighting for too long. If you wish to avoid these effects, you can stick the black velvet strips on the back plate. Stick the smaller ones first, and the larger ones after.



## **WARRANTY**

Imagerie ensures that:

- no TOSCA is perfect, neither are two TOSCAS the same.
- The probability of lightleaks and other beautiful accidents is very high
- the TOSCA is not waterproof
- will try to help any user in trouble. Just use the contacts in the next page if you are in such situation

## **contacts**

Imagerie – Casa de Imagens

A NON-VIRTUAL, PHOTOGRAPHIC ALTERNATIVE SOCIAL NETWORK.

[www.toscapinhole.com](http://www.toscapinhole.com)

[www.imagerieonline.com](http://www.imagerieonline.com)

[geral@imagerieonline.com](mailto:geral@imagerieonline.com)

**+351 916 199 408**