

## Pinhole Photography

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### Description

The technology for these simple cameras was first described by a 5th century B.C. Chinese philosopher named Mo Ti, who noted that light passing through a pinhole into a dark room will form, on a surface behind the pinhole, an inverted image of the scene outside.

Leonardo da Vinci further developed the idea of the camera obscura ("black box," in Latin) in the 15th century, and by the 16th century the cameras were being fitted with lenses and used as drawing tools. The user would aim the box at a scene and trace the focused image onto paper. In the 1830s, when light-sensitive materials that could permanently record an image from the camera obscura were invented, photography was born.

For this assignment, you will build a simple pinhole camera according to the basic principles that have been known for centuries. Using this handmade camera, you will make photographs.

### Requirements

Using the pinhole camera you have built, make a minimum of three images that have the following characteristics:

- In focus
- No light leaks
- Well exposed
- Well composed

### Notes

You must have at least one photograph of each of the following types:

- Demonstration of near/far capabilities of the pinhole camera. In the same photograph, have one part of your subject within inches of the lens, while another part of your subject is very far away from the lens.
- Portrait. Take a picture of a person. The frame must be well composed. Get close!
- "Ghost image." Since pinhole camera exposure times are frequently quite long, take a photograph in which a subject moves or is removed halfway (or some other fraction) through the exposure. The result should be a ghostly, semitransparent image of the person or thing that has moved.