

A Pinhole Becomes A Lens!

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Japan

Aomori Pref.



70feet



Tachineputa

Taken at: Tappizaki



Rice

AOMORI

青天の霹靂

AITEN NO HEIKIRIKI

**Aomori
Pref.**





Towada City

Towada Art Center



Flower Horse

Jonfa Che



Aomori Prefectural Towada Technical High School



Aomori Prefectural Towada Technical High School

Woodwork



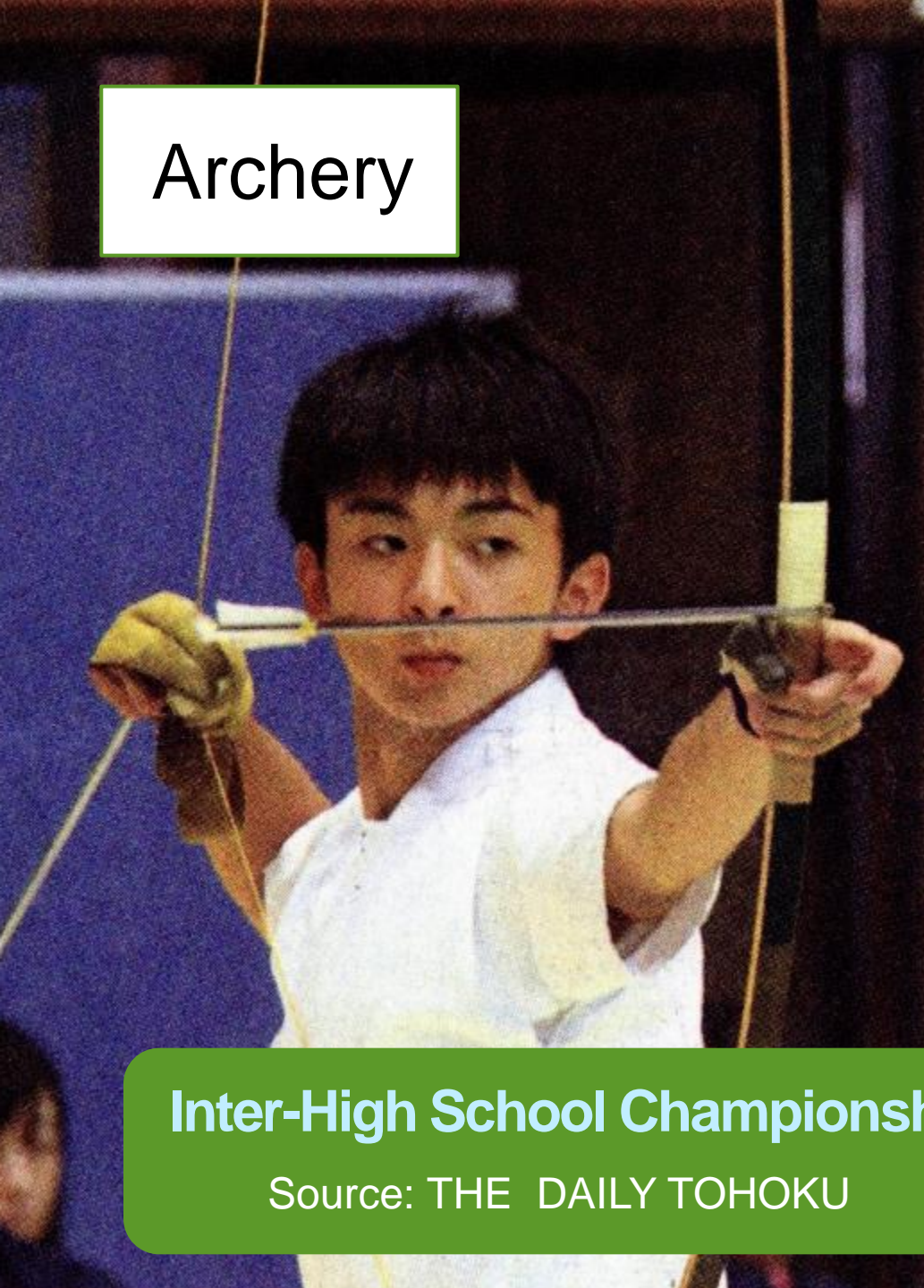
Welding



Soldering



Archery



Cycling



Japanese
Kung Fu



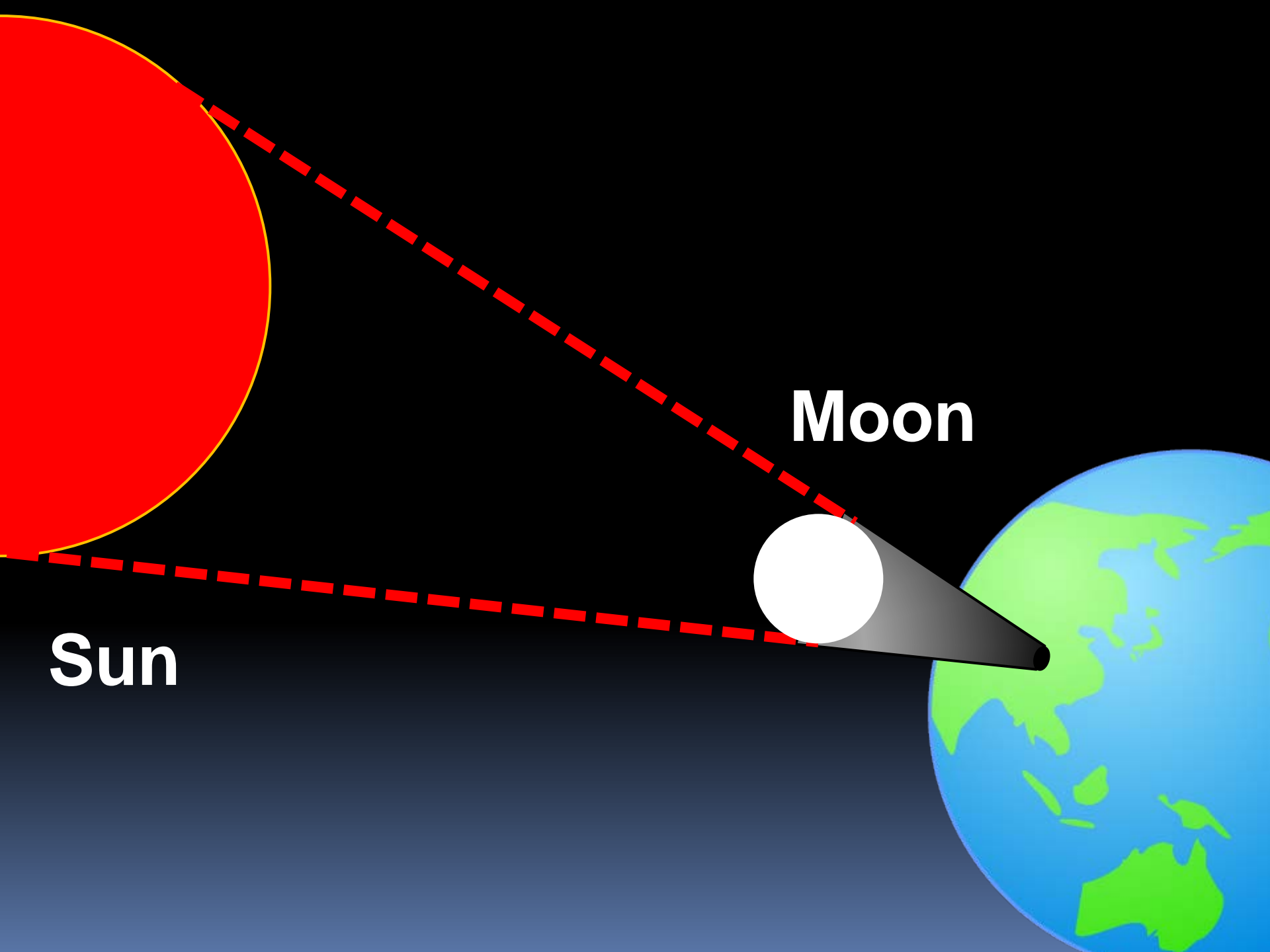
Inter-High School Championships

Source: THE DAILY TOHOKU

What is this photo?

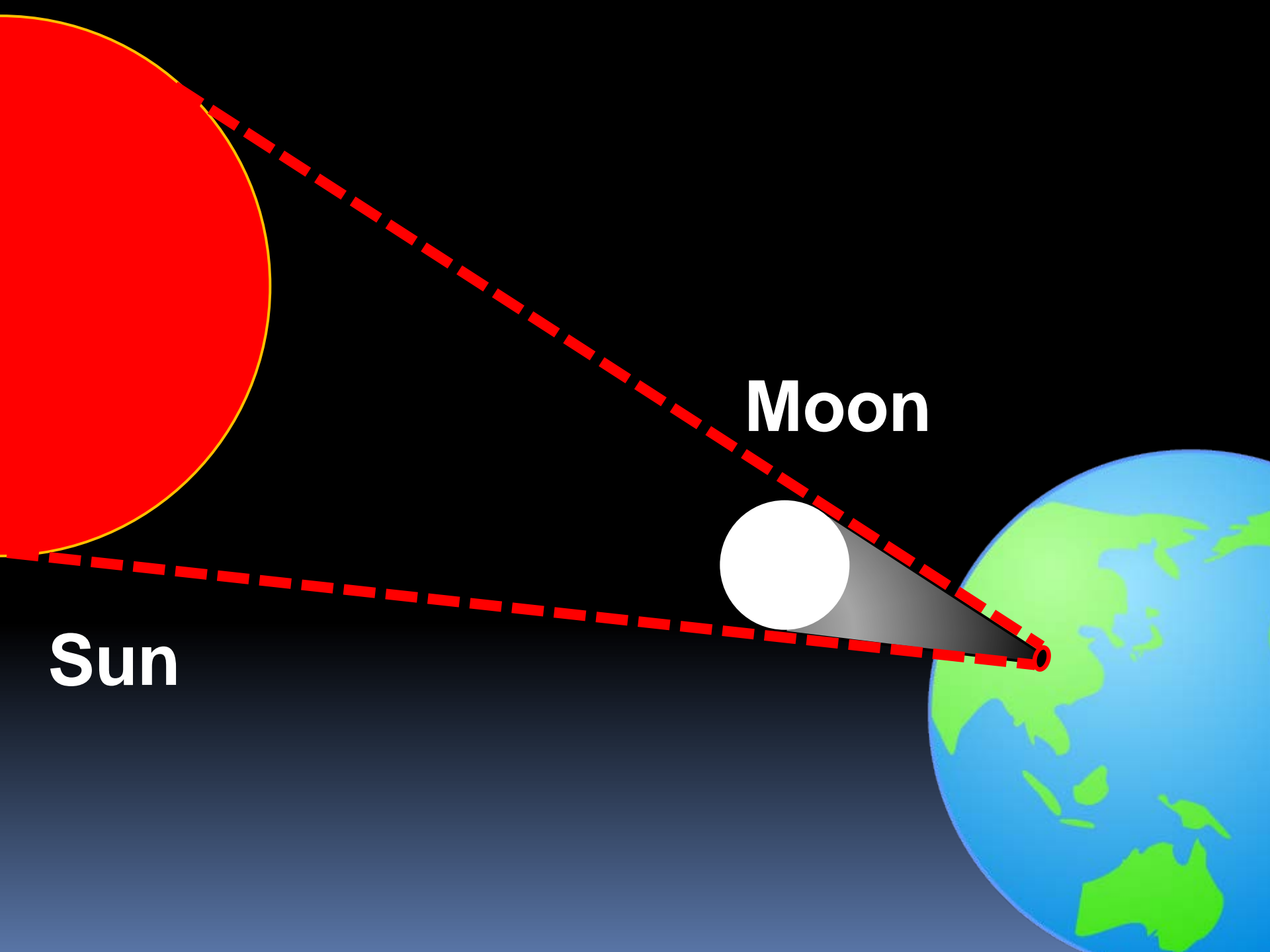


Source: NHK Creative Library



Sun

Moon



Sun

Moon

Sun

Annular Solar Eclipse May 21, 2012

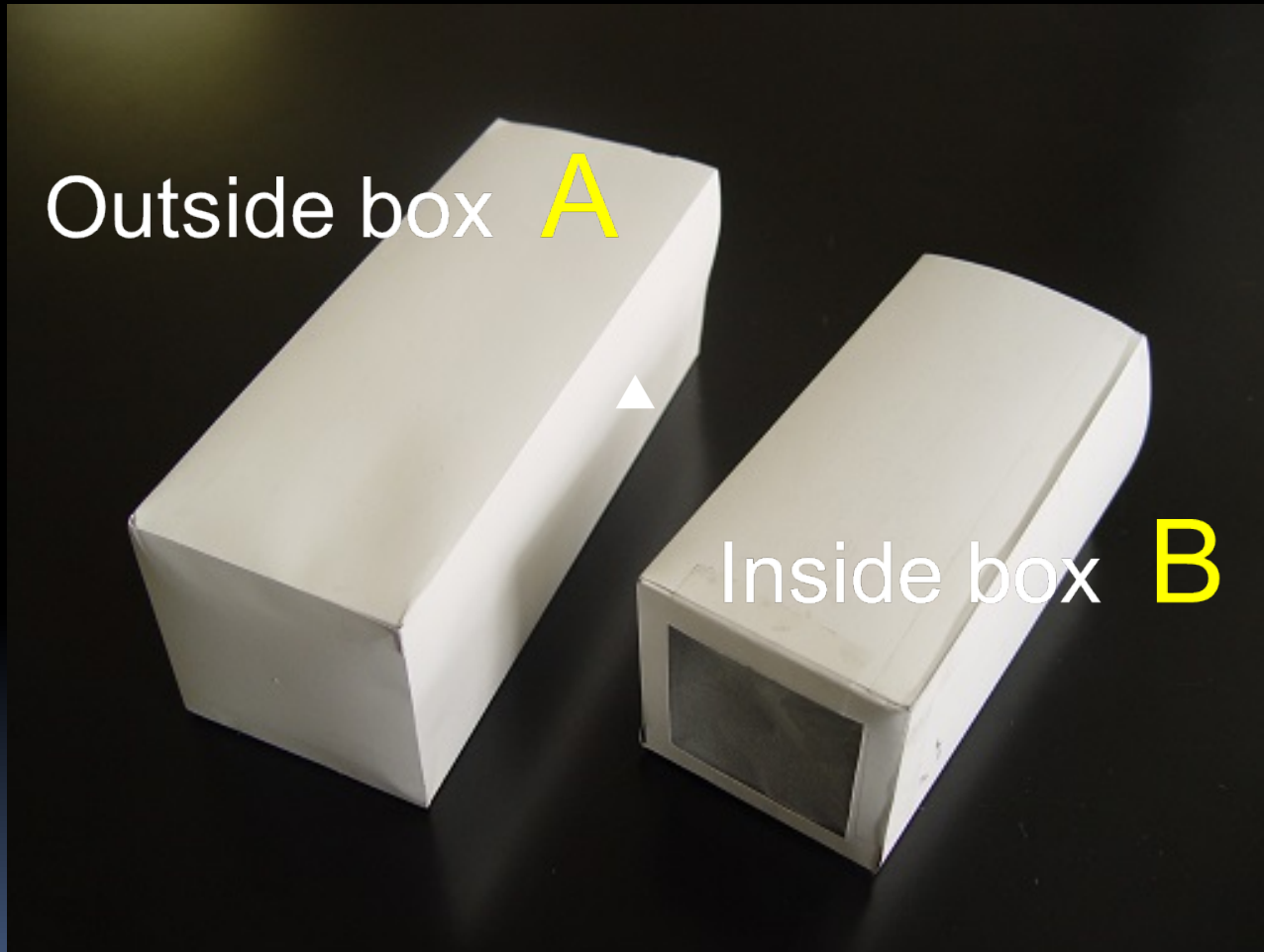


Taken by: Alpsdake

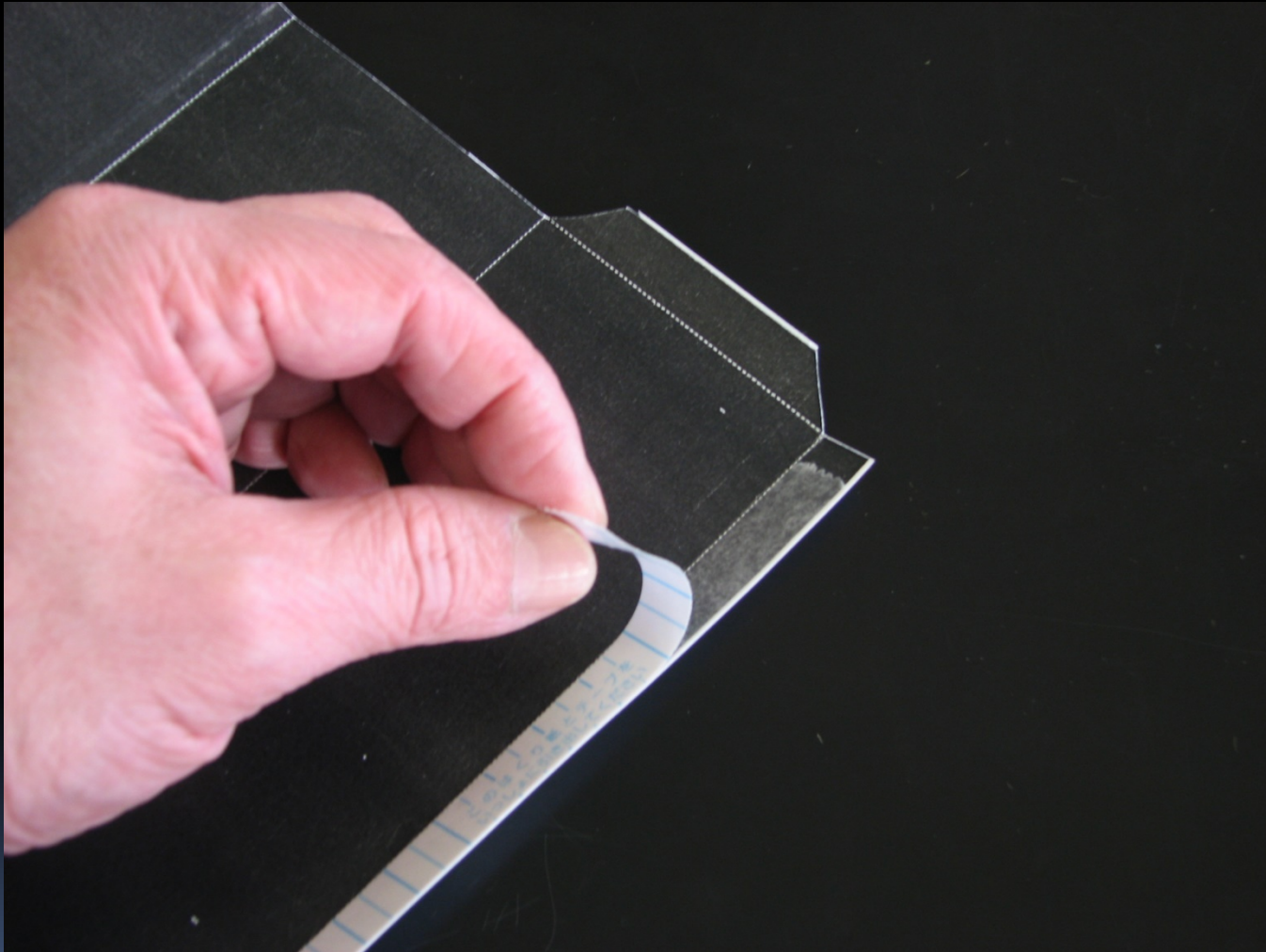
Total Solar Eclipse of 2017 August 21



Let's make a pinhole camera

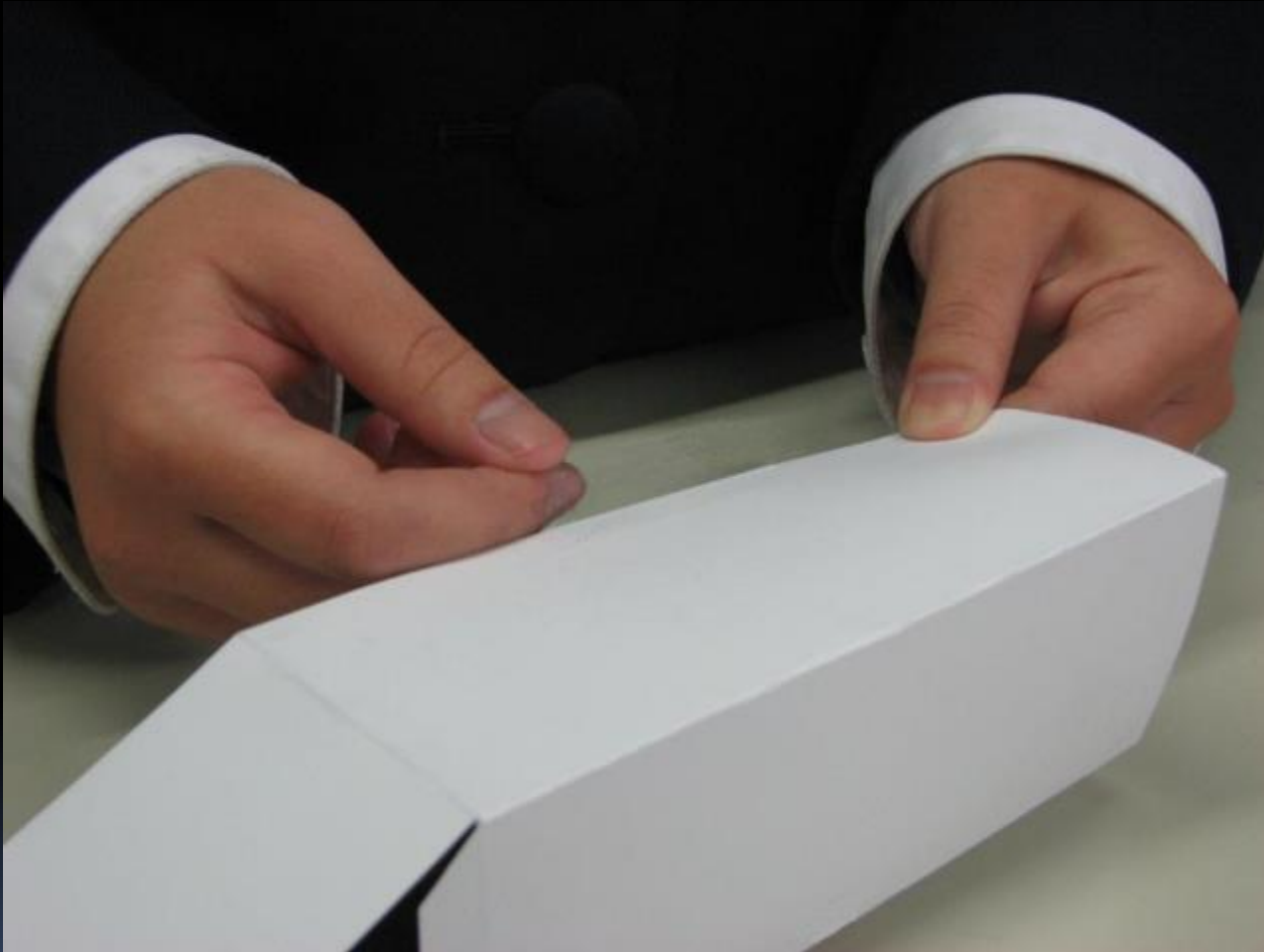


Let's make a pinhole camera



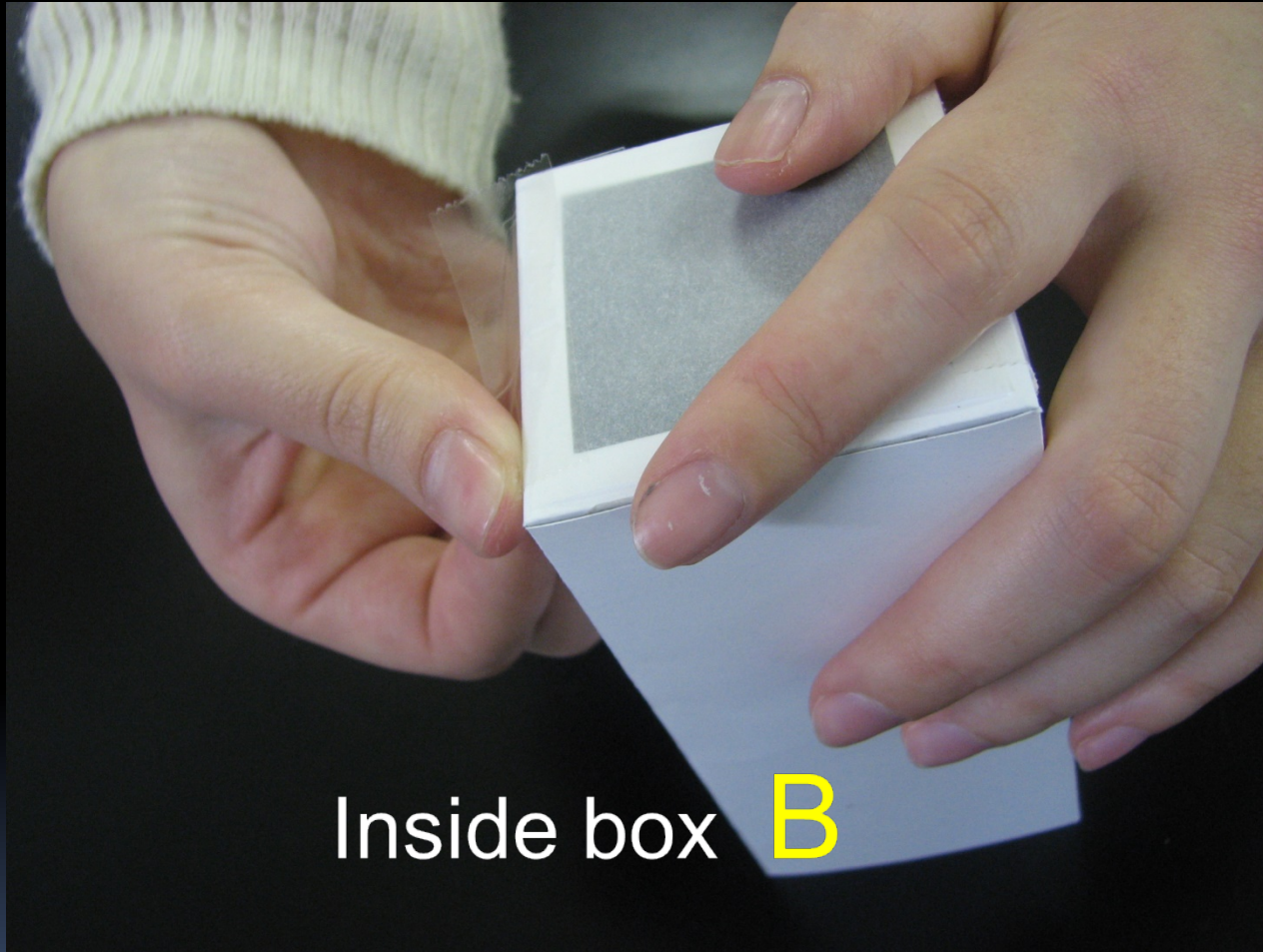
(1) Remove release paper

Let's make a pinhole camera



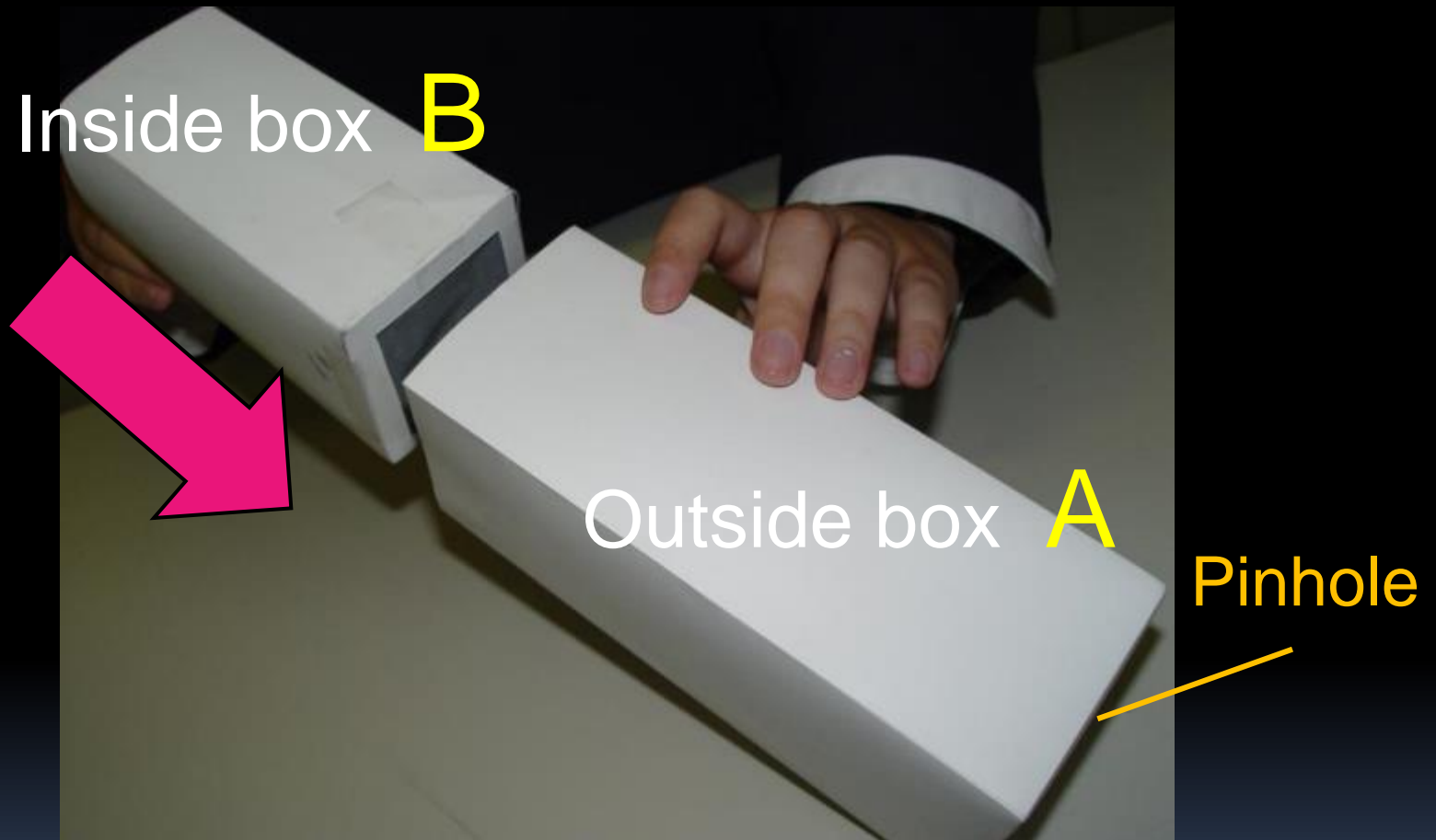
(2) Use double-sided tape to assemble

Let's make a pinhole camera



(3) Attach the powder paper to inside box **B**

Let's make a pinhole camera



(4) Put the inside box **B** in the outside box **A**

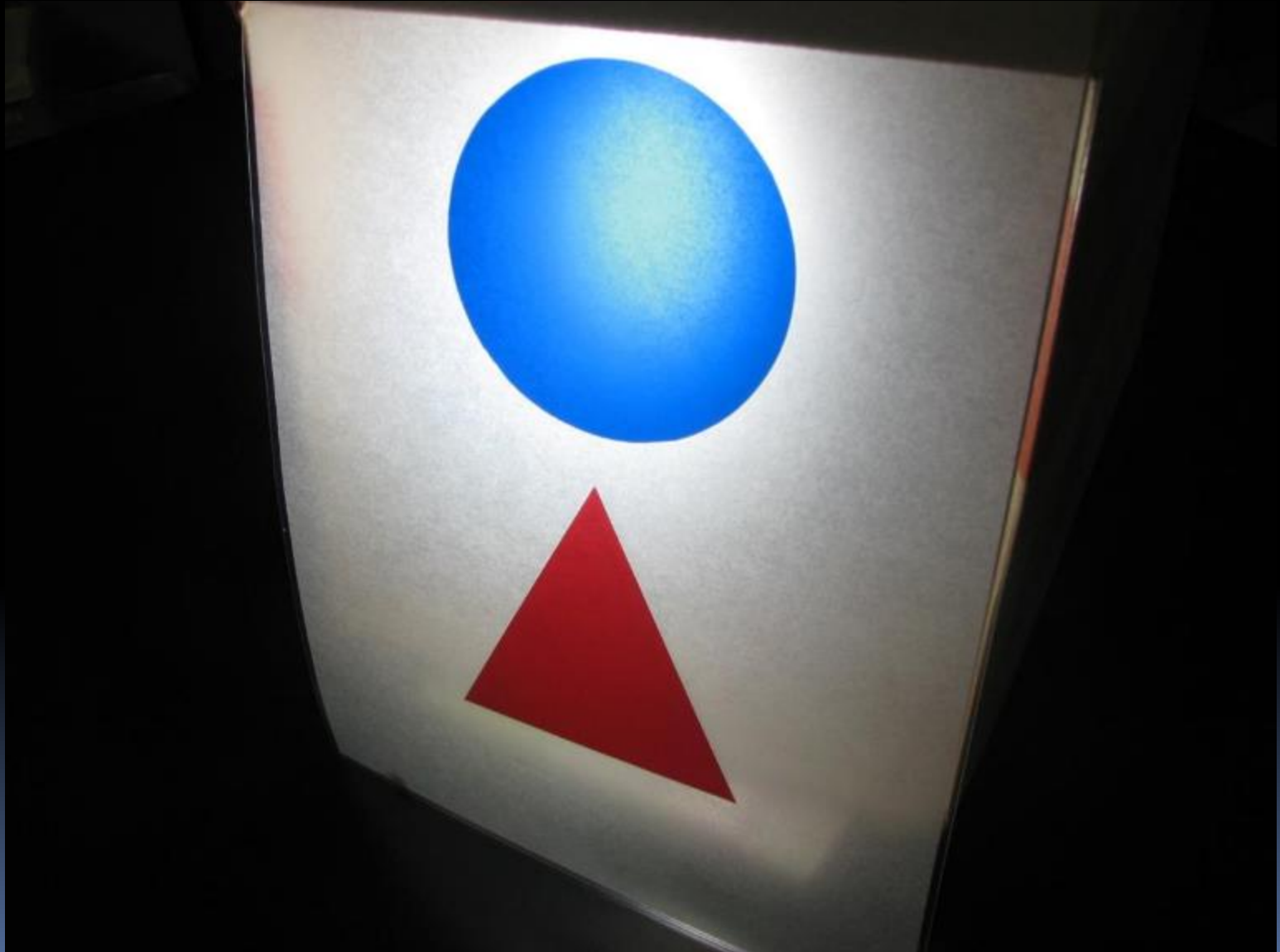
Let's make a pinhole camera

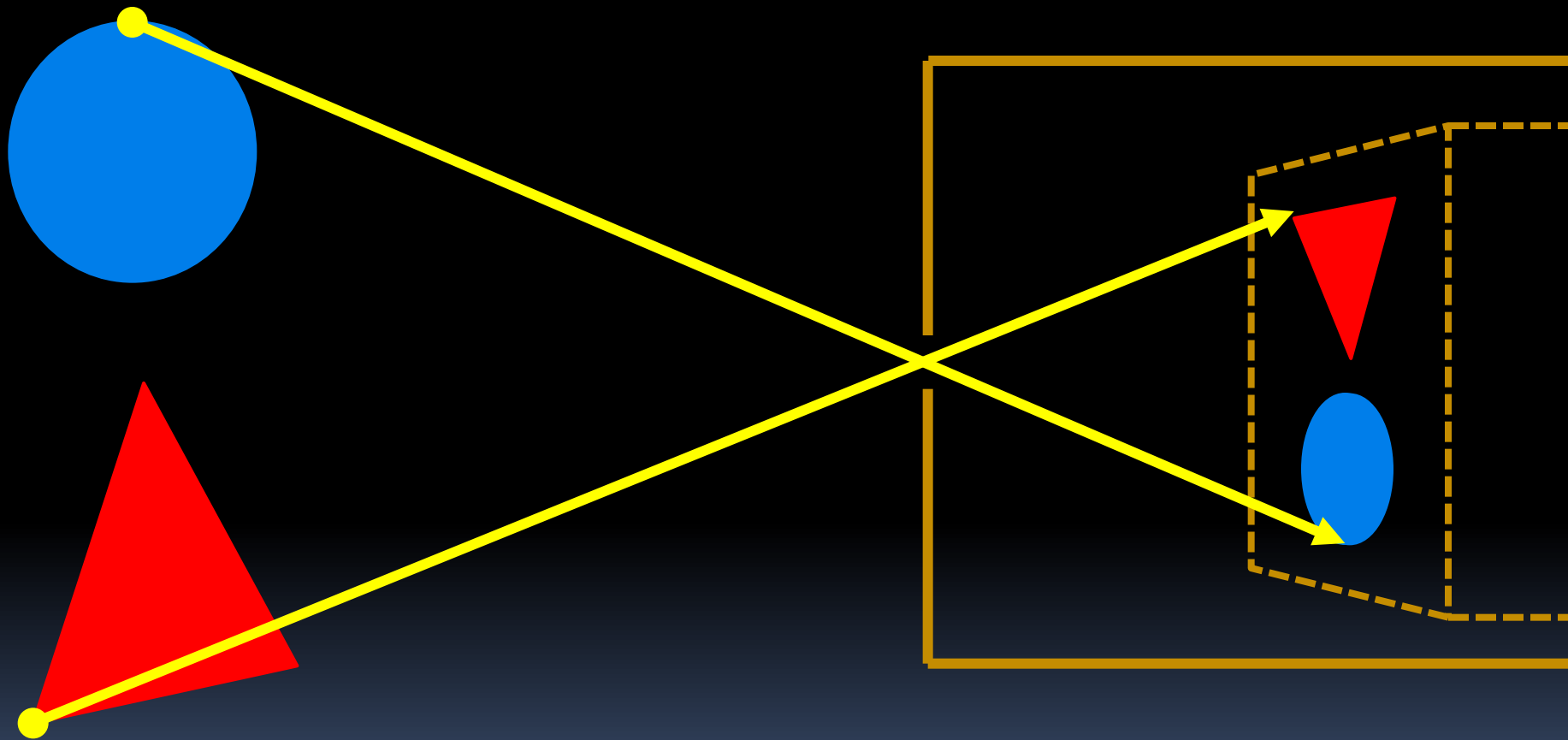


(5) Take a look at a bright place

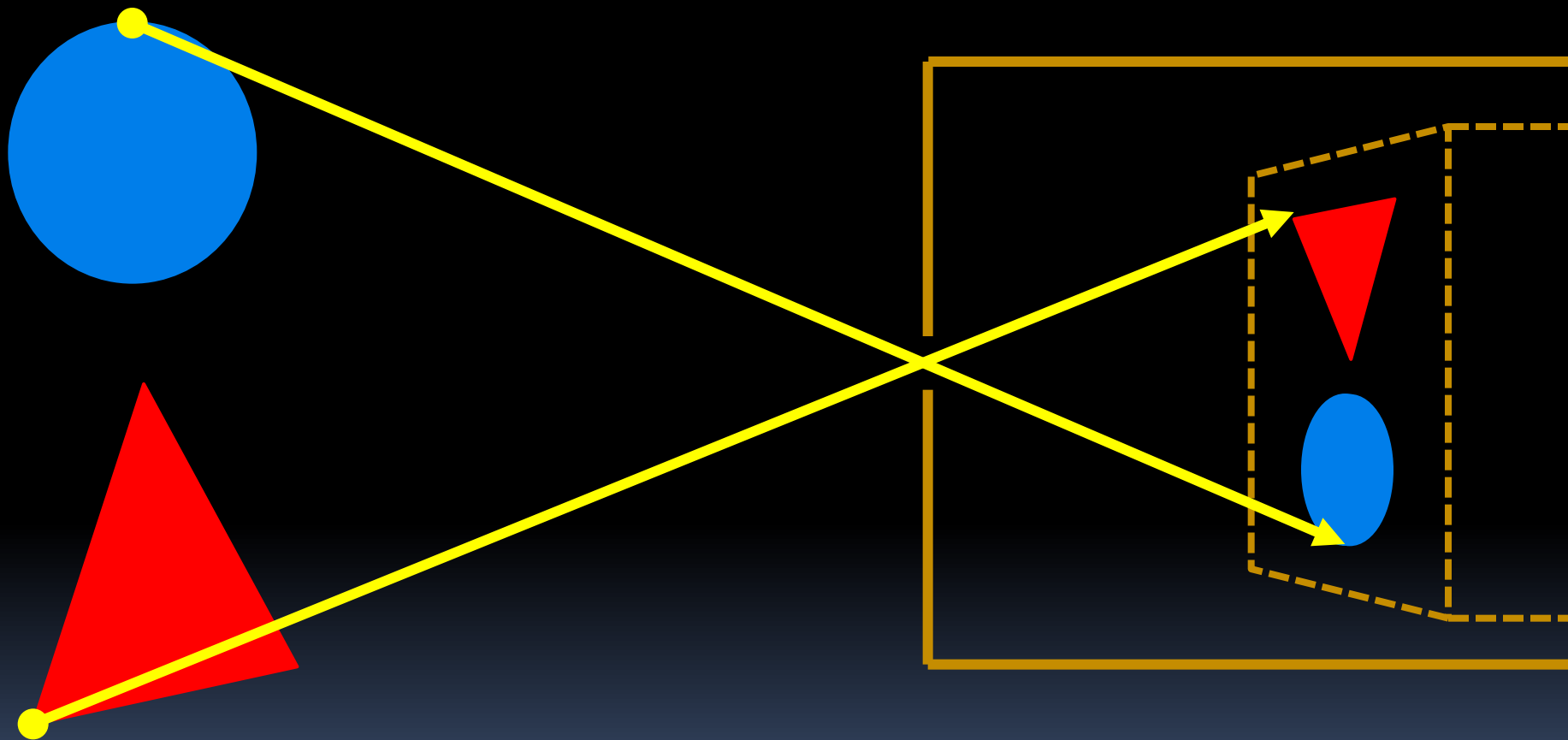
Look at a light source.

What do you notice?

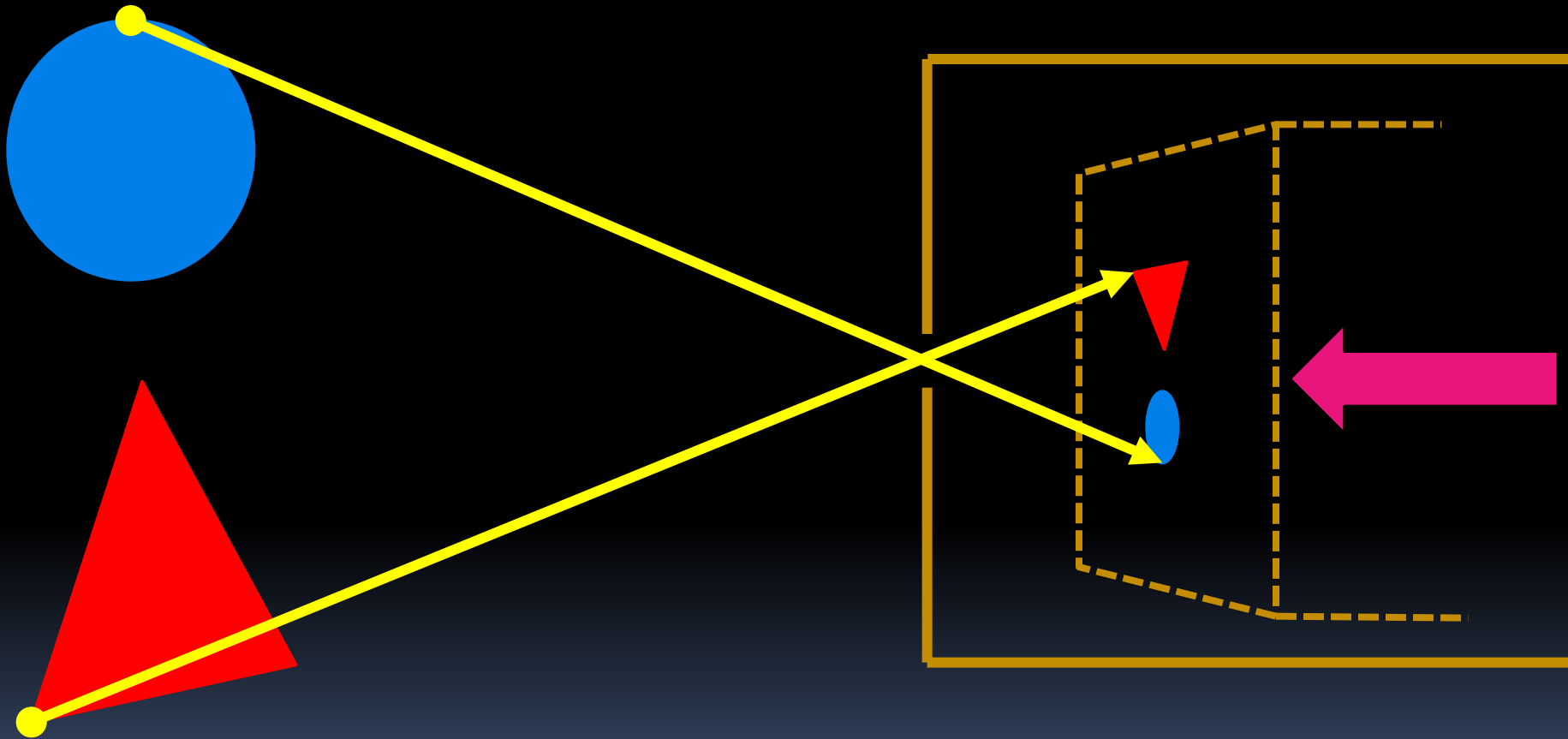




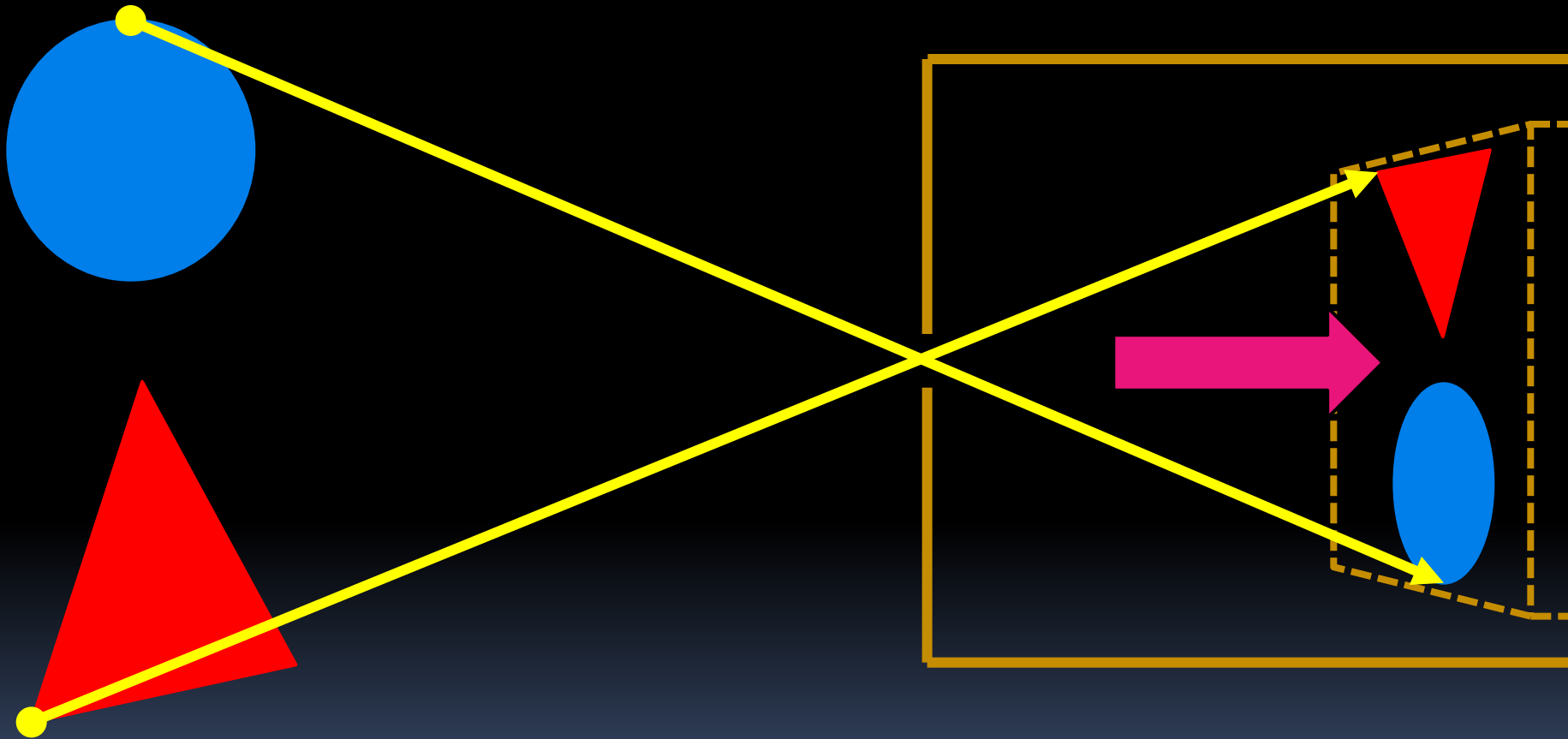
It's upside down



Can make it smaller



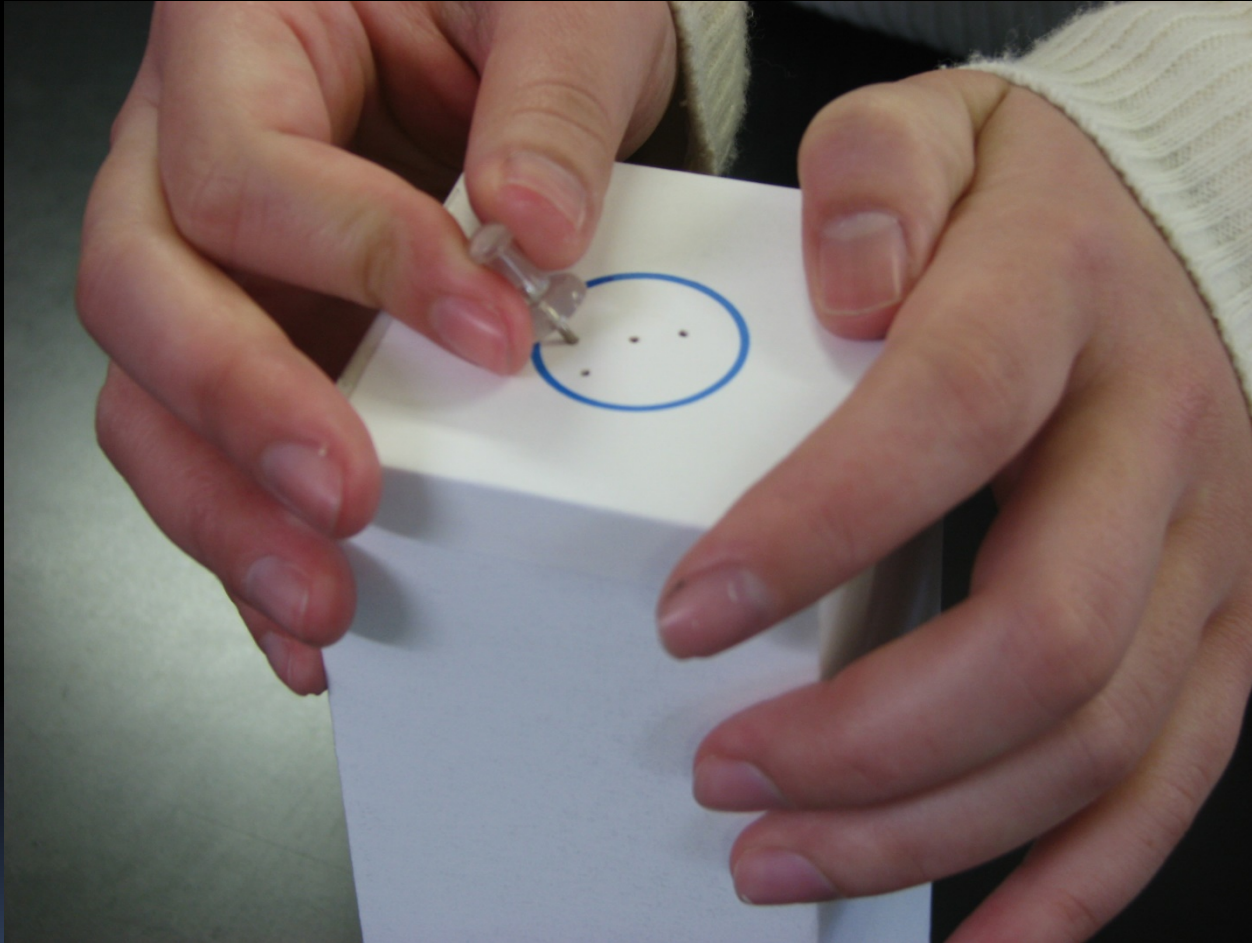
Can make it bigger



Let's look at a different light source



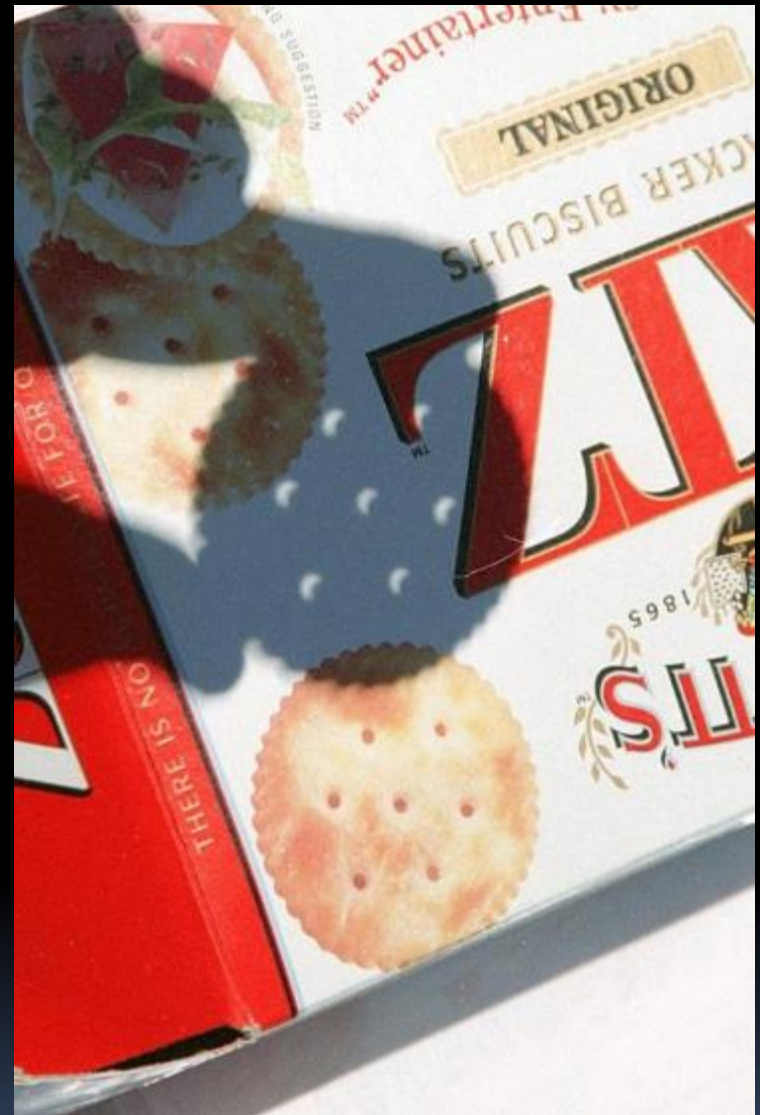
Let's make more pinholes



Add several pinholes in the blue circle

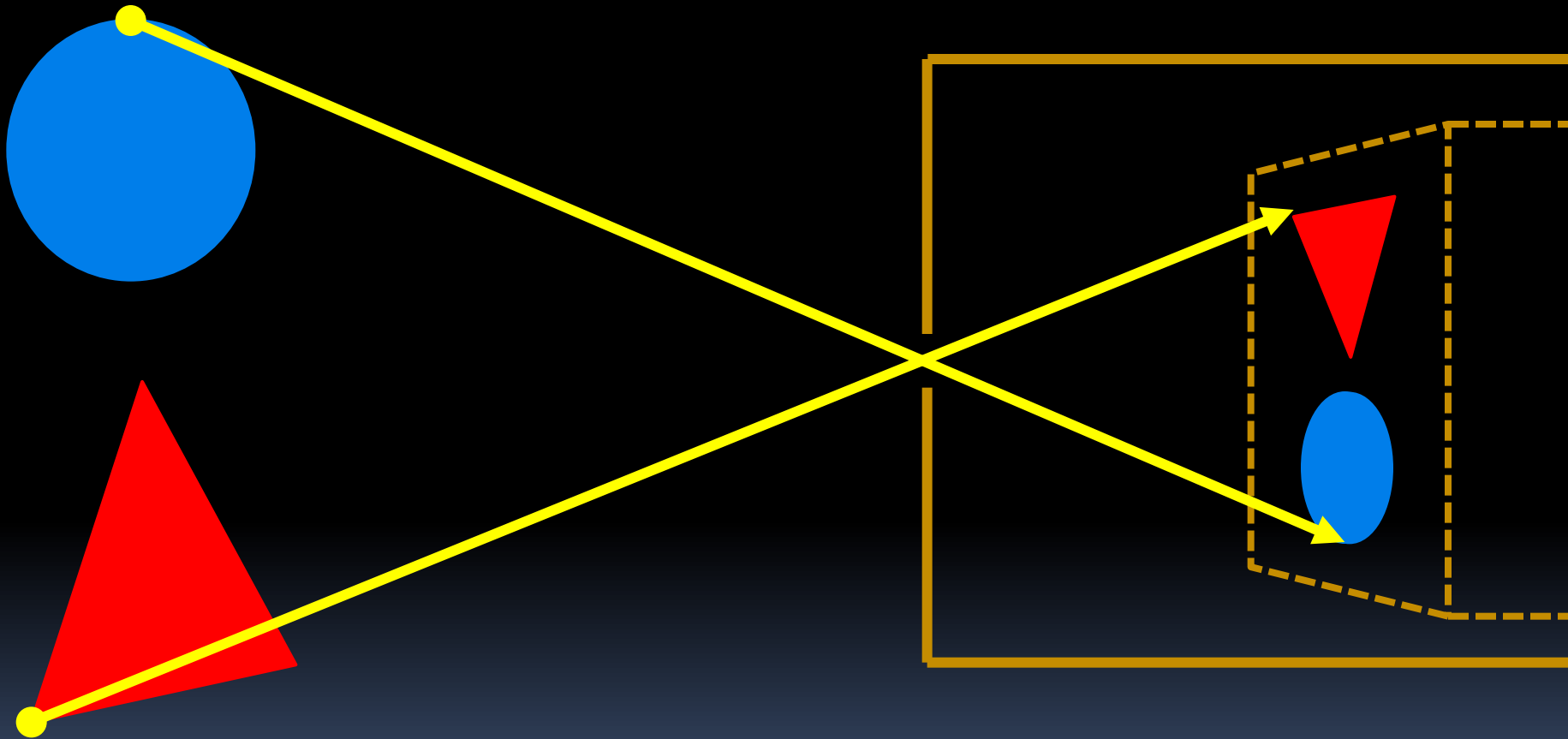


Kitakyushu City, Fukuoka Pref.
(Taken by: Mitsuo Arikado)

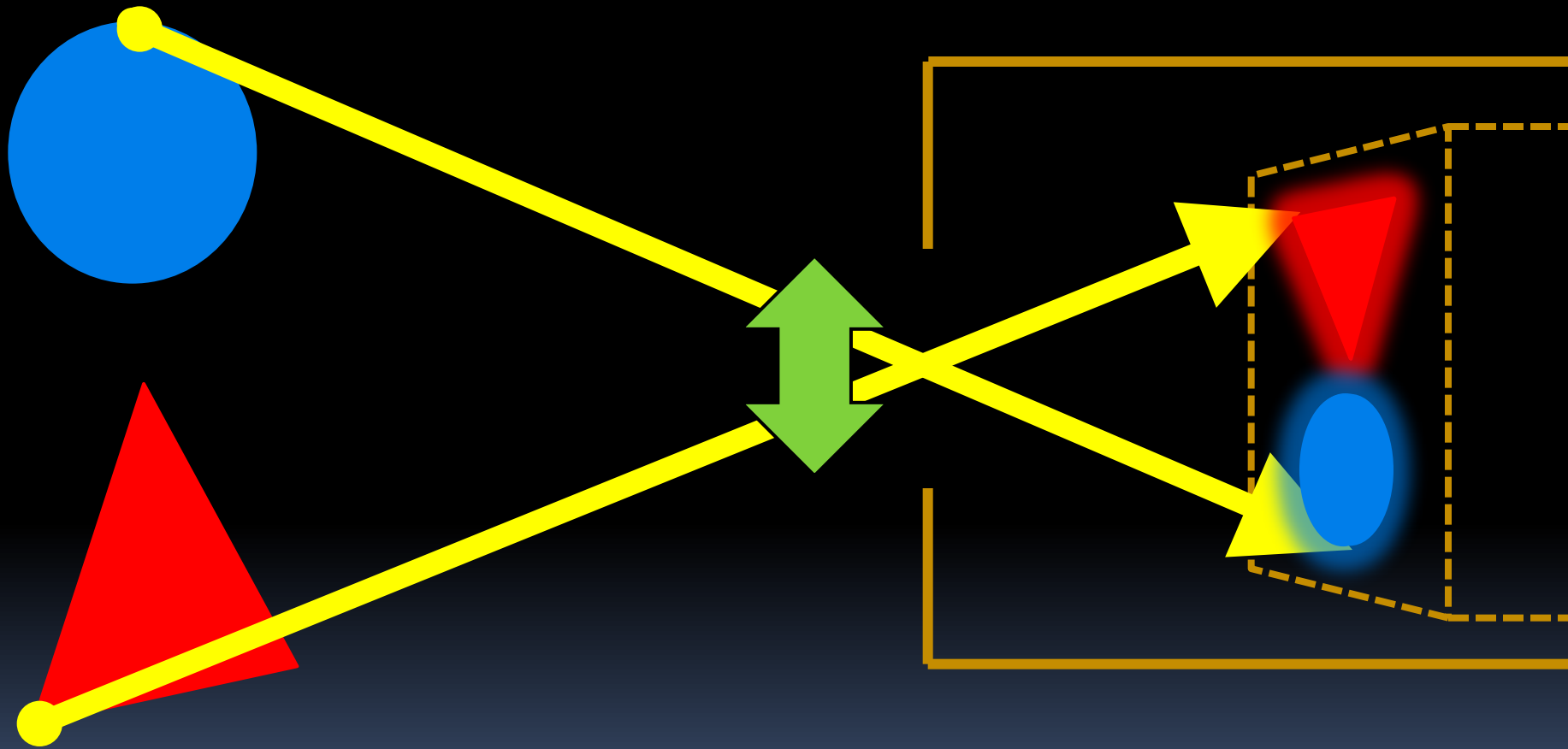


Australia
(Taken by: Shinichiro Nishizaki)

Pinhole size

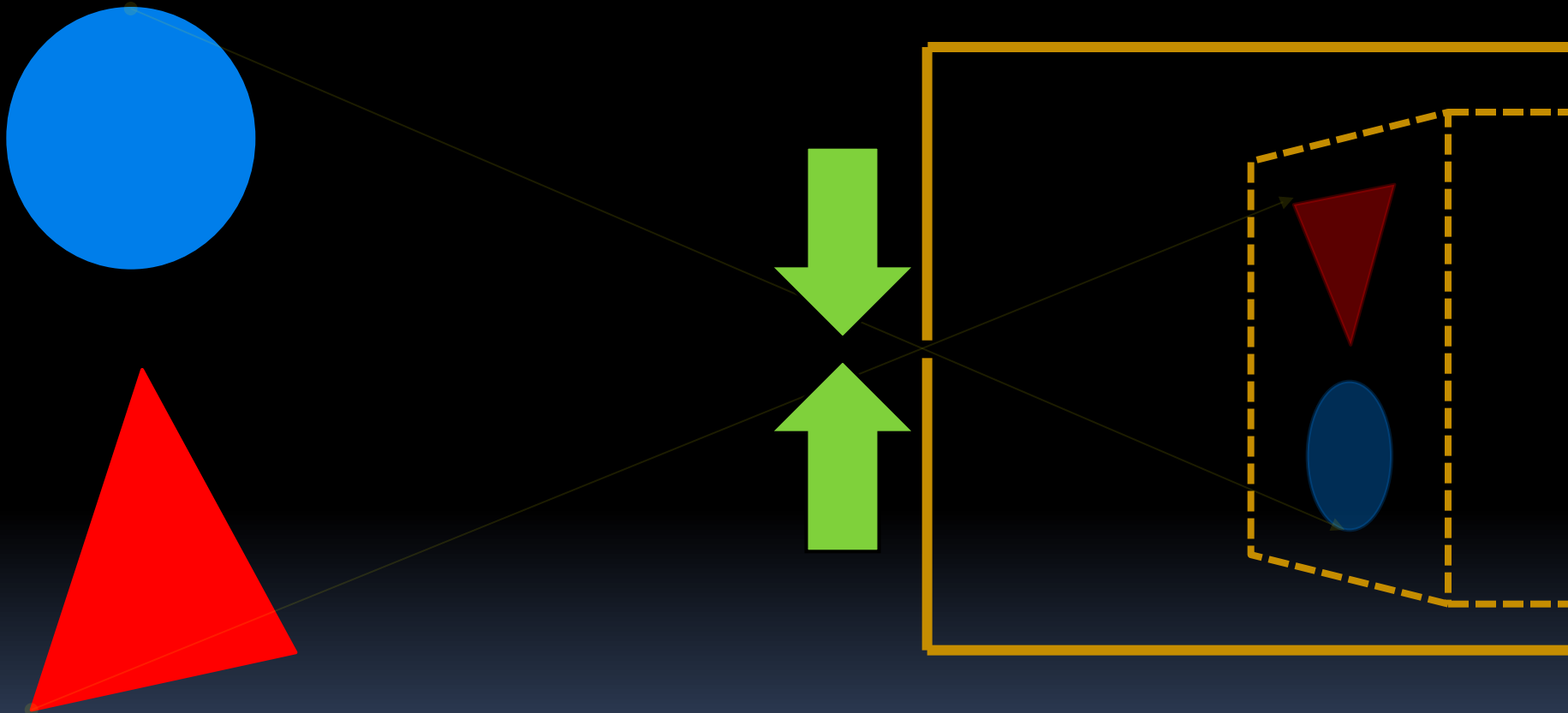


Pinhole size



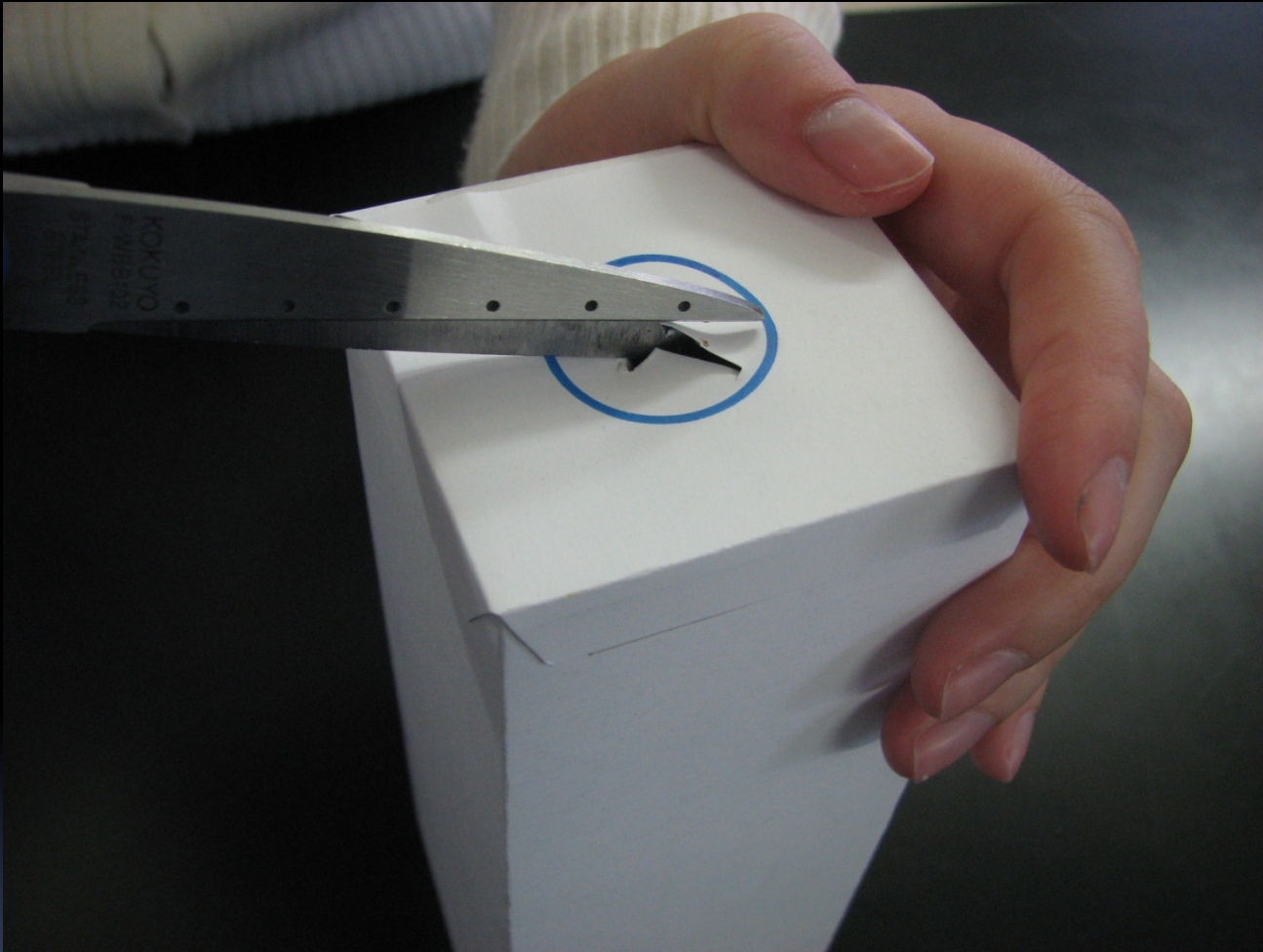
too big = blurry

Pinhole size



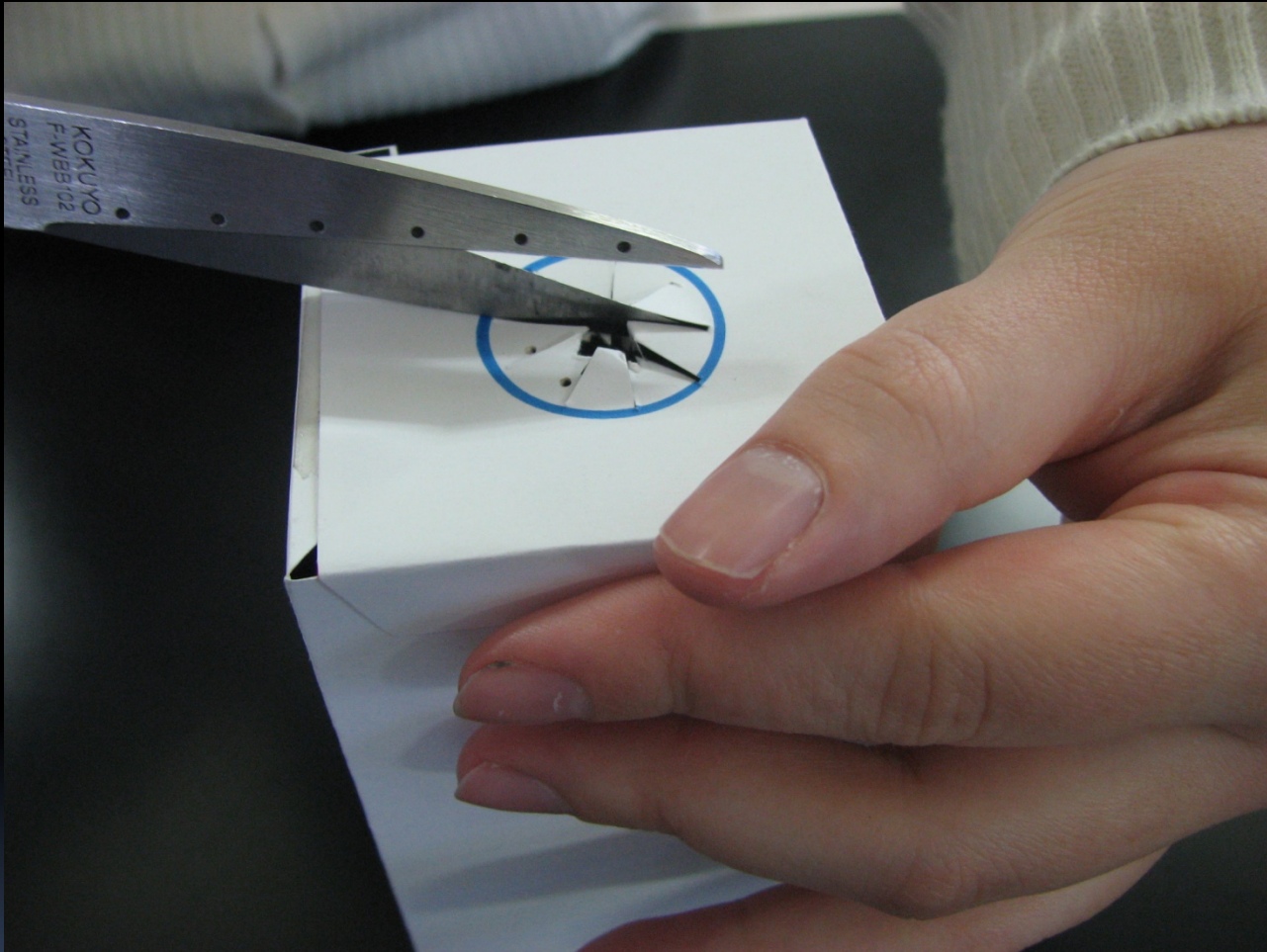
too small = too dark

Let's make a really bright camera



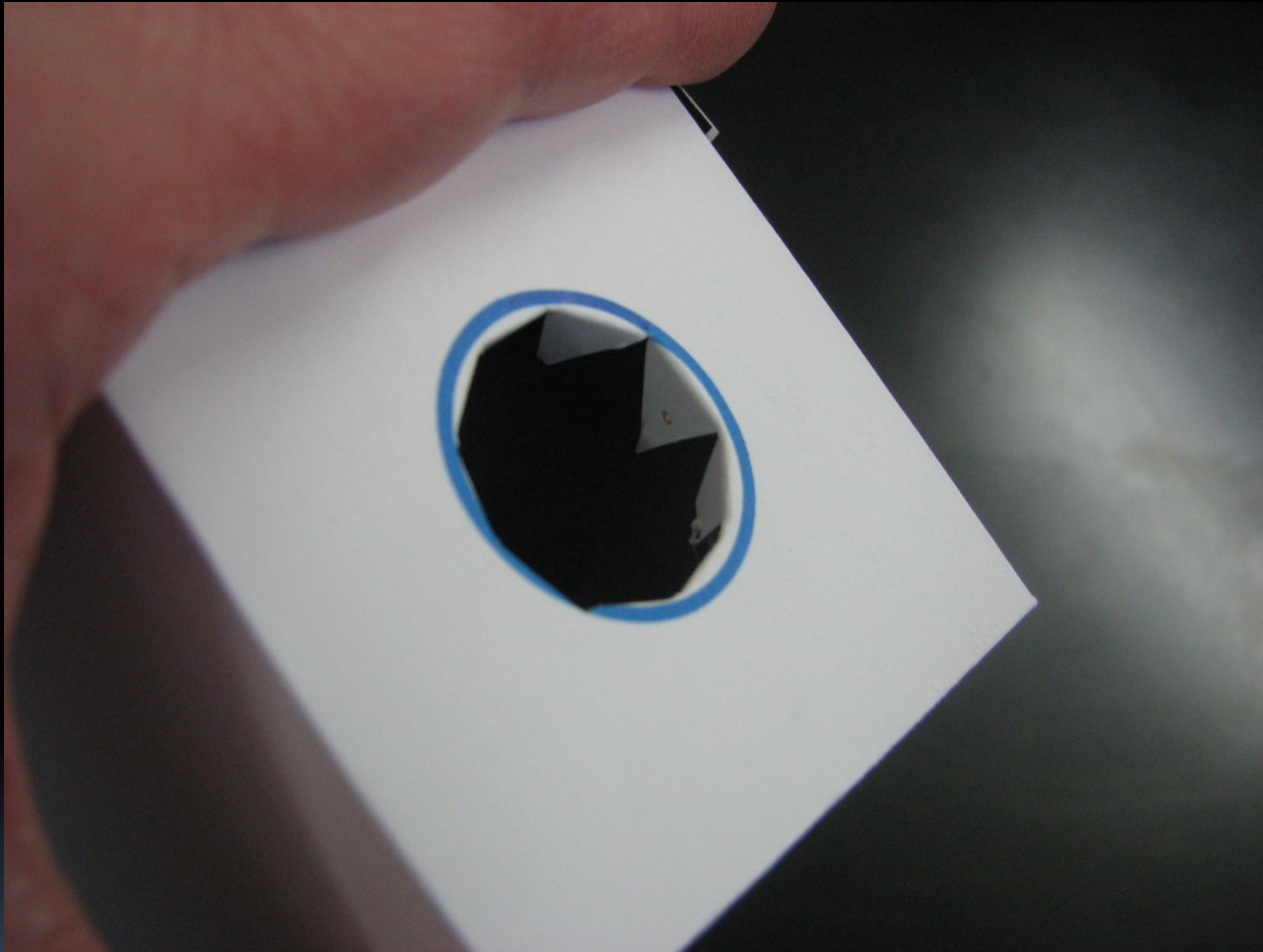
Put a scissor into the center pinhole

Let's make a really bright camera



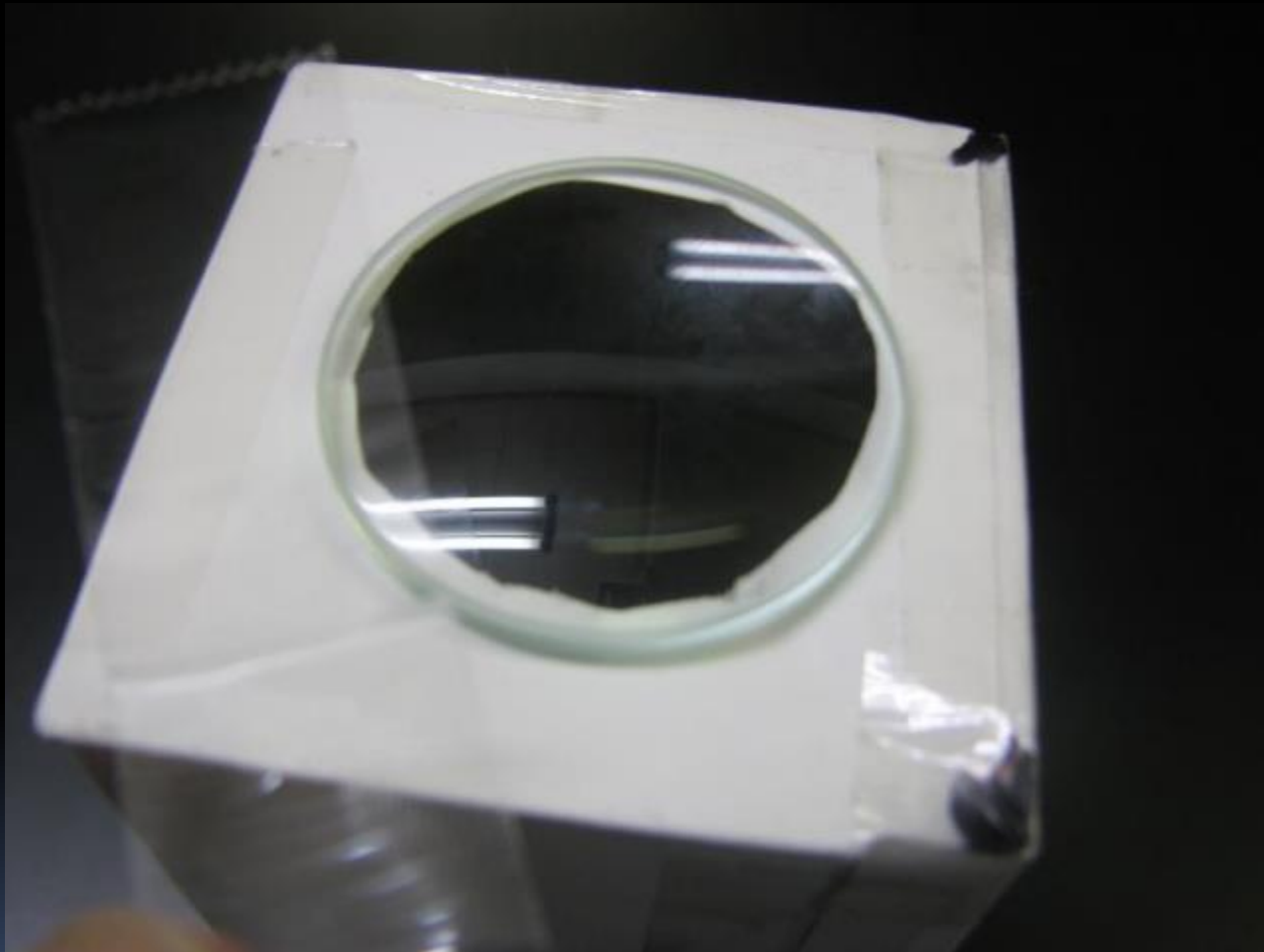
Make cuts in the paper until blue line

Let's make a really bright camera



Push into the box

Let's make a really bright camera



Affix the lens using tape

Take a look around

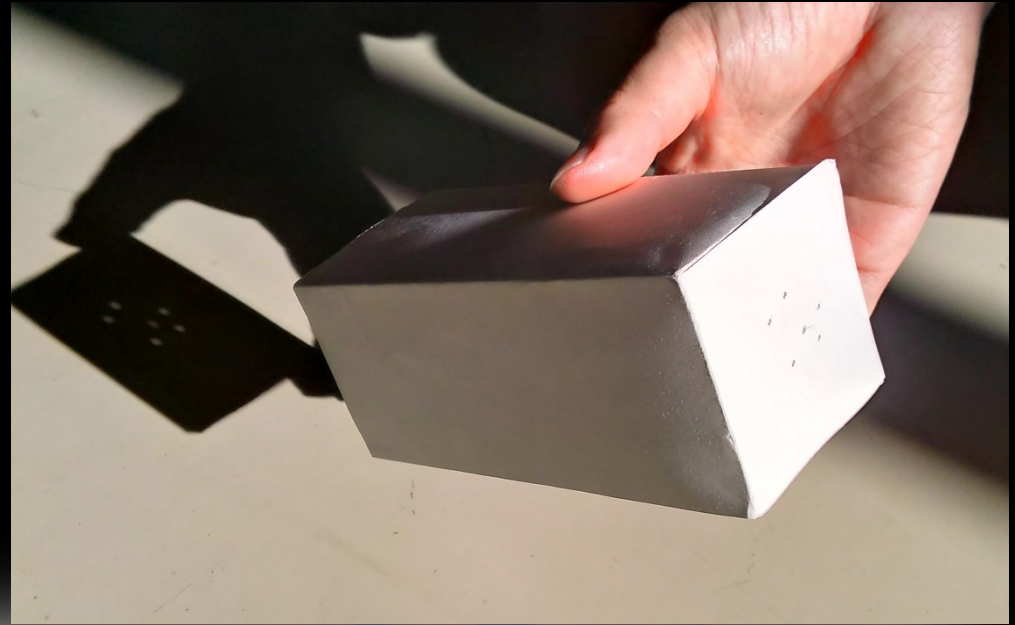
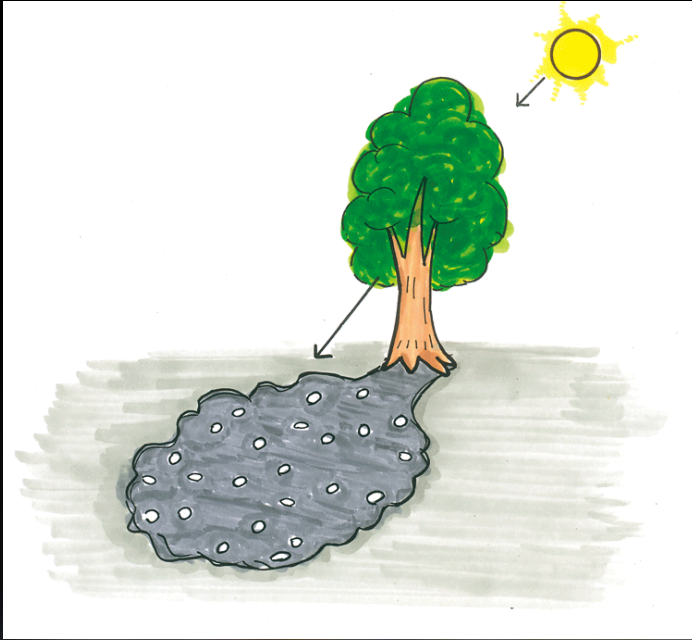
Advantage

Image is bright and clear

Disadvantage

Focus needs adjustment

To see an eclipse



Find a place where the light comes through the trees and makes a nice image beforehand
(You don't need to search too hard, you can also watch with a pinhole)

Caution

**Never look at the sun directly ,
even during an eclipse ,
with only the outside box A
or with a lens camera**



Taking a color photo through a pinhole



Magnet

A camera made using a metal box

Let's take a color photo



Put the instant film in the metal box

Let's take a color photo



Apply the development fluid to the film with a roller in a black bag

Wait for around 1 min.

for the photo to develop

(instant film instax mini)

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