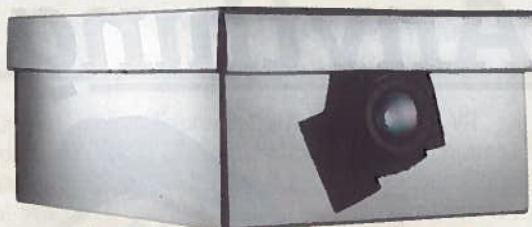


Cheap Tricks

Turn a Shoe Box into a Phone Projector



Don't watch that YouTube clip on a tiny screen—project it onto the wall instead! The picture may not be movie-theater quality, but it improves if the phone is very bright and the room is very dark. **JUSTIN QUINNELL**

STATS

Time 20 minutes
Cost \$2
Difficulty ●●●●●

INSTRUCTIONS

- 1 Cut a hole in one end of the shoe box and cover with the magnifying glass. Use tape to ensure light will only enter the box through this lens.
- 2 To find the focus, point the lens at a nearby window or light source. Move the card through the box until it displays the external image sharply.
- 3 Wrap the rubber bands around the card to make a phone holder. Tape the card upright at the focus point you just identified.
- 4 Secure the phone upside down (its image will be flipped). Finally, adjust the box's position until it throws a picture onto the wall.

MATERIALS

- Shoe box
- Magnifying glass
- Black tape
- Thick card
- 2 rubber bands

OCTOBER 2014

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