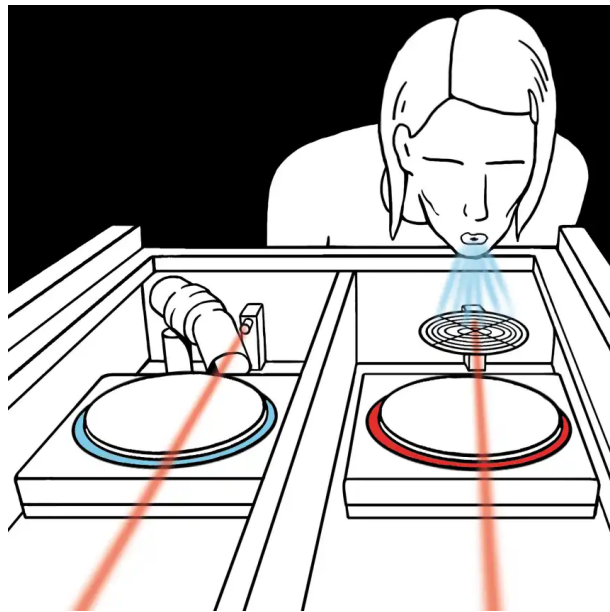


Hands-on Mirage

Can you blow away the laser beam?



Blow through the grating onto the hot plate. What happens to the laserbeam?

Press the green button to activate the hairdryer. The hairdryer blows hot air over the cold plate. What happens?

The beam is deflected within a narrow horizontal layer of air created by air at different temperatures.

As light moves faster in hot air than in cold air, the light waves are deflected toward the cold side of the layer. On the left (hot plate) the cold side is on top, on the right it is underneath. Light waves passing through the air layers are not affected. Only when, as with the laser beam, they travel along the border between the layers, the phenomenon can be observed.

The observed principles are similar to the conditions which create a mirage.