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Pair of Concave Mirrors for Projecting Non-Inverted Real Images

Researchers at the University of South Florida have developed a novel apparatus and a technique to project an image in free space.

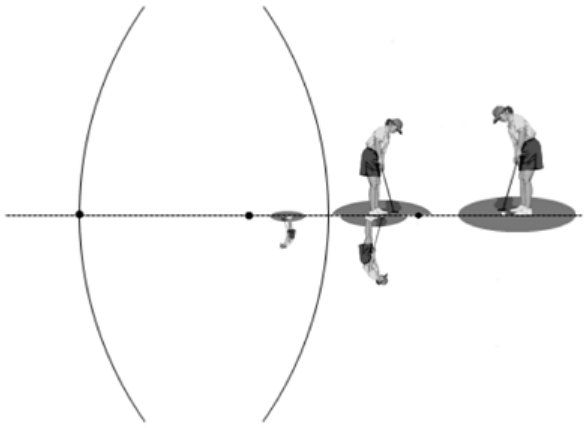
Over 25% of adult Americans are near-sighted. Therefore, the need to provide a mirror that provides clear reflection for these people affected by myopia is essential. Conventional mirrors produce a reflection behind the mirror. The real image reflection generated by this invention is an image in space. This invention provides a scenario in which people affected with nearsightedness can see their image clearer without their corrective glasses.

This invention is an optical device that projects a 3D image into free space in front of the device, allowing an observer to focus on a reflection much closer to their eyes. The device uses a pair of parabolic mirrors and places them in a unique orientation. Optic principles dictate the magnification, orientation, and position of an image based on where an object is placed in relation to a concave mirror's focal point and radius.

This invention can be used to project 3D images close to an observer's eyes.

ADVANTAGES:

- **Clearer image**
- **Holographic properties**
- **Compact size**



Cross section view of the invention and the intermediary images created from reflections between two equal size concave mirrors.

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