Parity Innovations

FLOATING IMAGE – FROM SCIENCE FICTION DREAM TO REALITY

Parity Innovations Co. Ltd.

Image float in the air, experience the next generation display technology

Company Profile

Parity Innovations Co.Ltd. researches and developments next-generation imaging technology called “Floating Image”, it is a startup spin-off company from the National Institute of Information and Communications Technology (NICT). The imaging device Parity Mirror® that we have developed is the world's first air projected floating image without the need for using special glasses, it works just by placing it there. In addition to mass-producing the Parity Mirror®, we perform research, development, and production of advanced systems related to the functioning of the Parity Mirror®.

The world of science fiction and anime movies in front of your eyes

We developed the Parity Mirror® with smart finger position sensing software, such that it is possible to touch and manipulate the floating image. Our smart finger position sensing software can be used in various situations and will serve as the next-generation user interface. Real objects and floating images can be displayed overlaid so that AR (Augmented Reality) can be expressed in the real world. You now have the chance to experience this futuristic display technology, which feels like something out of the world of science fiction movies.

※Different principle from Holography.

※Picture is image.

www.piq.co.jp

Parity Mirror® — Mirror where the image emerges —

Outline of Parity Mirror®

Parity Mirror® is an imaging optical element with a DCRA (Dihedral Corner Reflector Array) structure composed of a large number of orthogonal mirrors. The DCRA structure splits the light beam finely and collects them optically. Light gathers in-plane symmetry position to create the floating image. Parity Mirror® is produced by using the latest nanotechnology processes.

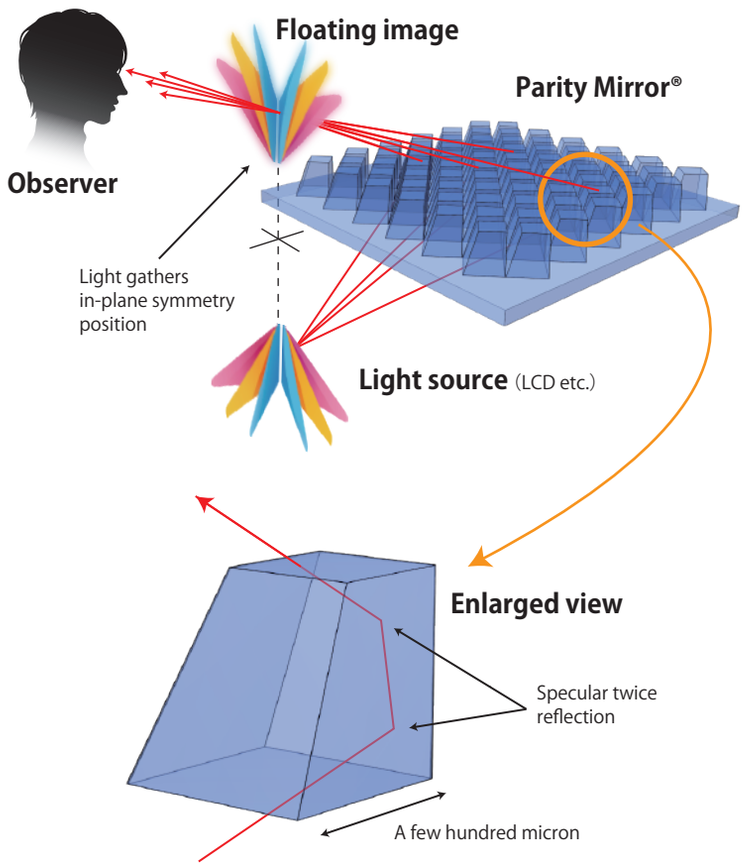
Features

Features not found in conventional display technology, realistic floating images can be displayed like real objects.

- **Not necessary to use special glasses**
- **No additional process is needed to reflect objects**
- **Possible to make floating image of the real object**
- **Full color display is available**
- **No distortion in the floating image**

※Only can see the floating image where Parity Mirror® is placed in the background of the floating image. Due to current manufacturing technology limitations, the visible area is limited to the front.
※When displaying a real 3D object, unevenness of floating image is reversed.

The principle of seeing the floating image with Parity Mirror®



Application Examples

※Some of following pictures are images.

Touchless user interface system : By combining the "Floating Image" and sensing technologies, our floating touch panel and air switch devices can be operated without physically touching anything.

Parity Innovations

Create a society where fantasy and science fiction becomes reality

Parity Innovations co. Ltd. was founded in December 2010, we focus on planning, development, and design of optical components/systems, and developing acquisition of industrial property rights and license business.

We research, develop, and mass produce the Parity Mirror® while developing and producing advanced technology related to the functioning of the Parity Mirror®.

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