

## **Garnet Vision**

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Garnet Vision is the first spatial immersive display which covers a full solid angle of the view. The viewer is totally enclosed by twelve rear-projection screens. A rear-projection screen requires a large backyard. We set criteria in order to optimize space utility of the display system: pixel efficiency and space efficiency. Pixel efficiency means how many pixels are displayed on each polygon of a polyhedral screen by a projector. Space efficiency is determined by the ratio of the displayed volume of a polyhedron to the overall dead volume of the backyard of a rear-projection screen. Through examination of these criteria, a rhombic dodecahedron is chosen from various polyhedrons, and it maximizes space utility.

The participant of Garnet Vision goes into the dodecahedron screen. S/he can rotate on a transparent floor and sees the full solid angle view. Viewers outside the screen can see half of the rhombic screens so that they can enjoy the image.