

The BiDi Screen is an example of a new type of thin I/O device that possesses the ability both to capture images and display them. Scene depth can be derived from BiDi Screen imagery, allowing for 3D gestural and 2D multi-touch interfaces. This bidirectional screen extends the latest trend in LCD devices, which has seen the incorporation of photo-transistors into every display pixel. Using a novel optical masking technique developed at the Media Lab, the BiDi Screen can capture light field-like quantities, unlocking a wide array of applications from 3D gesture and touch interaction with CE devices, to seamless video communication.

Institute/Organization : MIT Media Lab, Massachusetts Institute of Technology, USA

Research Team : Ramesh Raskar (Director)

Status : Going on

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