

EYEFly3D SCREEN PROTECTOR

Screen protector for seamless 3D viewing on mobile devices

Challenge

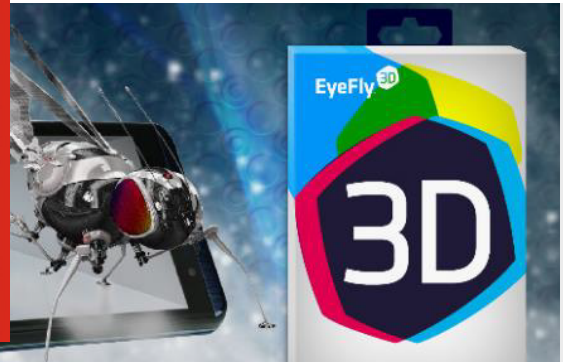
Viewing 3D content requires wearing special 3D glasses, but these are bulky to carry around. While glasses-free 3D technology is available, it has its limitations, including compromised brightness and resolution. Such challenges limit the reach of 3D content and its unique

Our Solution

Harnessing its expertise in nanomaterial technology, A*STAR's Institute of Materials Research and Engineering (IMRE) collaborated with Temasek Polytechnic to develop EyeFly3D, a screen protector capable of providing a glasses-free 3D viewing experience on mobile devices. The product resembles a thin film layer and is currently offered in the market by Singapore-based company Nanoveu.

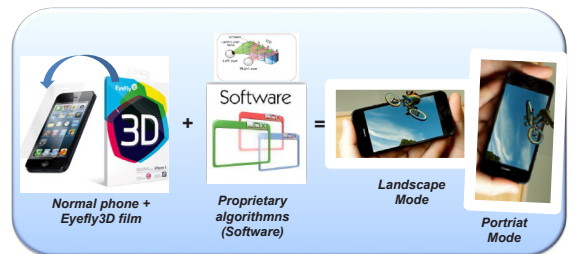
Tapping on IMRE's proprietary nanoimprinting technology, the EyeFly3D contains approximately 500,000 nanosized, precisely shaped lenses within its layers. The pattern, known as a lenticular lens array, gives a smoother and more transparent finish than that of existing 3D filters.

The lenses display content on the screen in 3D form by rendering slightly different images for the viewer's left and right eyes, giving an illusion of depth without sacrificing colour or sharpness. Where necessary, the film can be removed and replaced with ease. The product also functions as a premium-grade screen protector, with scratch-proof and shatter-proof qualities.



Uniqueness of glasses-free 3D film :

- ❖ Ultra flat to make it more touchscreen-friendly.
- ❖ Ultra thin and flexible for dual functionality as screen protector and 3D film.
- ❖ Readability of text is maintained in both 2D and 3D mode.
- ❖ No noticeable loss in brightness in display with 3D film attached.



Summary



Convenient, glasses-free 3D viewing experience on smartphones



3D filter that does not distort 2D displays



Screen protector is less than 0.1mm thick, scratch-proof and shatter-resistant

Potential Applications



Everyday use for accessing immersive 3D content on mobile displays

