Eye tech: Synthetic iris may revolutionize human eye repair

An artificial iris can open and close in response to sunlight without any other outside control, just like the ones in your eyes. This could help improve cameras and, eventually, repair damaged human eyes or control tiny robots that react to their surroundings.

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In bright light, the iris contracts to shrink the pupil, protecting the sensitive retina inside your eye, which sends visual signals to the brain. In the dark, the iris opens to let in more light so you can see...Such artificial apertures normally require an external sensor to tell them when to open or close. But now, <u>Arri Priimägi</u> at Tampere University of Technology in Finland and his colleagues have created one that opens and closes on its own.

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Priimägi says the device is not quite ready to be implanted in a human eye because it doesn't have precise enough control over aperture size and only responds to fairly strong light.

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The artificial iris can close in seconds, but that will need to be sped up to the millisecond level for many applications, such as in sensitive cameras that could be ruined by suddenly pointing at a bright object. It may also need to close more tightly – at present, it still lets around 10 per cent of light through when fully shut.

[Read the full study here]

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: Synthetic iris could let cameras react to light like our eyes do