



C-224

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LAMP EMITS LIGHT WAVES TO REPLACE WIFI

 TELECOMMUNICATIONS

A design student has developed a LiFi lamp designed for libraries and public spaces

Most people are familiar with WiFi, which allows wireless broadband connection, but few will have experience of LiFi (Light Fidelity). While WiFi uses radio waves to transmit data, LiFi uses light waves. In LiFi, data is embedded in a beam of light, which converts into an electrical signal. The signal then converts back into data by a receiver on the computer, phone or smart device. Data travels back using invisible light. Because the spectrum of these waves is much larger than that of radio waves, LiFi could offer much greater bandwidth than WiFi. Light also travels much faster than radio waves, which could translate into much faster data speeds.

There have been few LiFi devices for everyday use. Now, Alexandre Picciotto, a graduate of Swiss university **ÉCAL** (Ecole Canotonale d'Art de Lausanne), has developed a LiFi emitting lamp. The lamp was created in collaboration with French LiFi firm **Oledcomm**. It uses LEDs to transmit data through visible waves to devices fitted with a LiFi receiver. The lamp also has infrared emitters that transmit data via invisible light, therefore allowing the LiFi connection to remain active even with the lamp switched off.

Picciotto's lamp, which he calls C-224, is the one of the first LiFi lamps in the world. Picciotto designed the lamp for use in public libraries, allowing four hotspot connections per device. The lamp contains a diffuser, to spread the light (and data) evenly, while glass covers the infrared emitters to protect users' eyes. Picciotto describes the lamp as welcoming, "like a meeting point, to bring people naturally towards it."

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