

TECHNOLOGY

PROJECT PROPOSAL: Li-Fi

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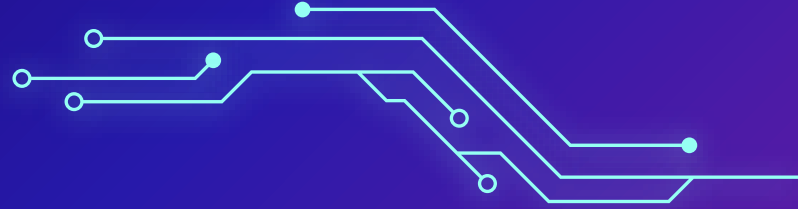
INTRODUCTION



Li-Fi is a wireless communication technology which utilizes light to transmit data and position between devices.



DEVELOPING MATERIAL



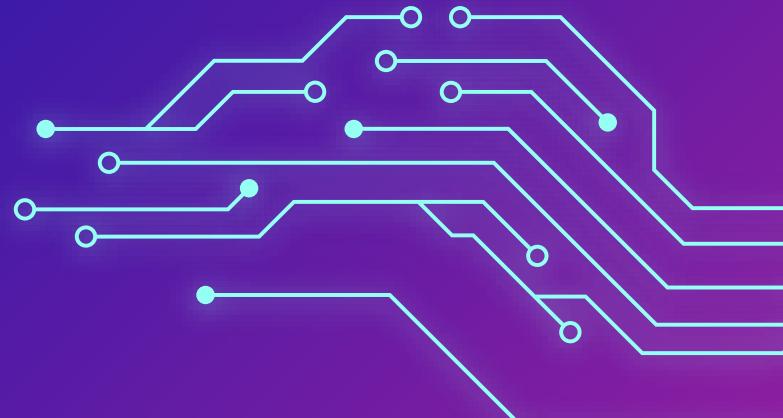
LI-FI COMPONENTS

Solar panel, LED, 9V battery, resistor, Audio Amplifier, Sound Hosting device, Cables, etc



MAIN CONCEPTS

- ❑ The Li-Fi router receives the information via cables
- ❑ It then transmits it to the LED bulb which fluctuates at high speed, at a frequency of several tens of thousands of signals per second
- ❑ Which is then received by the solar panel in the form of electric impulses (in binary form)
- ❑ This analogue signals are then converted to the desirable output





LI-FI APPLICATION



**Communication
Underwater**



**Traffic
Management
& Road Safety**



**In dangerous
Environments or In
Sensitive regions**



**Medical
Applications**



Aviation



**Industrial
Areas**



MARKET OUTREACH

● EXPANSION

Companies are coming up showing their interest to this revolutionary idea

Countries like US, Japan, China, Germany and many more have started a deep research



PROS & CONS

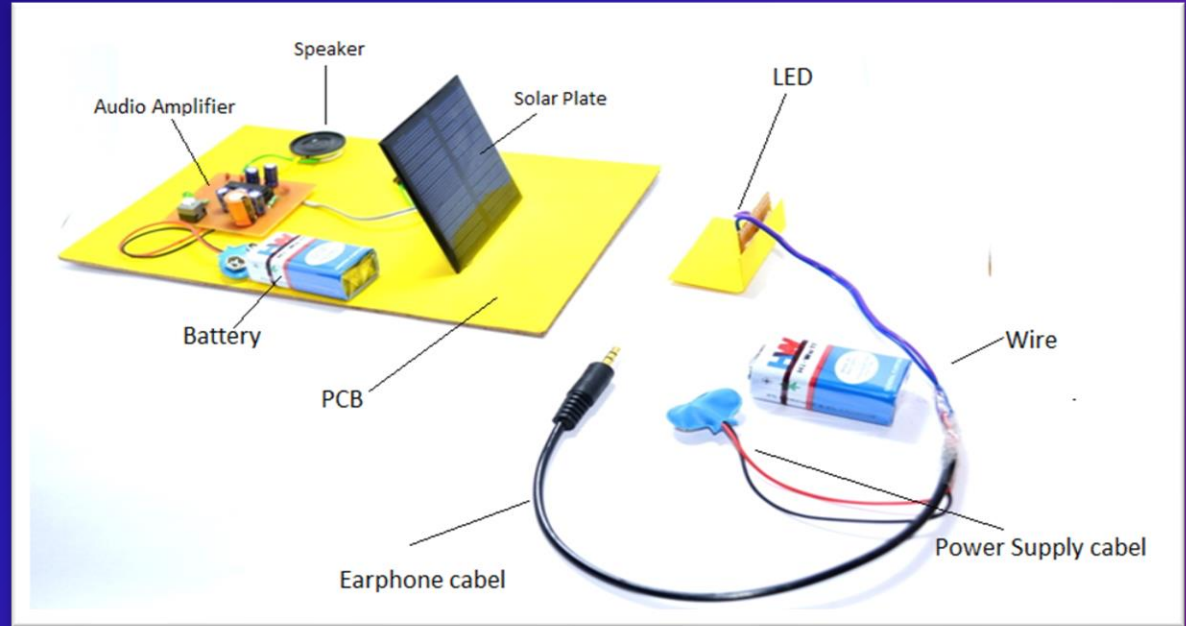


- **Speed**–The speed of the Li-Fi is very high, and we can watch the videos without buffering.
- **Security**– The light of the Li-Fi doesn't run through the partition, therefore, it is more protected and hacking is not possible.
- **Risk-free**–Li-Fi utilizes light waves which are harmless.
- **Consistent**– The data transfer is more protected.



- Apart from several benefits, the Li-fi technology is facing several problems. It requires LOS (line of sight), as well as the receiver, would not be a move in inside.
- Another disadvantage of this technology is an interference of exterior light sources such as normal bulbs; sunlight in the lane of communication will cause intermission in the transmission.
- It doesn't work in the dim areas.

ESTIMATED WORKING





THANK YOU

