



Li-Fi Technology

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A
REPORT

on

"LI – FI TECHNOLOGY"



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I and my team members cannot fully express enough thanks to our guide Mrs Ekta Sharma Associate professor, EE, PCE Jaipur. I am very much thankful for her help and guidance For completion of our report on Li-Fi(light fidelity) ,Without her Guidance it would have been not possible not possible for us to complete our model on time

I am also grateful to our respected Campus Director Dr .Mahesh Bundle. Dean. Dr. Rekha Nair Head .Dy. Head of the department along with all Faculty Members to provide such helpful environment to fulfill the task

ABSTRACT

We made this undertaking with the assistance to instructors by Choosing the subject our self I .e LI – FI which depends on signal.

In this task we originally gathered all the parts and after we began with setting the Led on a particular spot. We took in the circuits for The capacity of flickering of drove in some how versatile Signal is coming. We made our undertaking effective In the given time.

Components

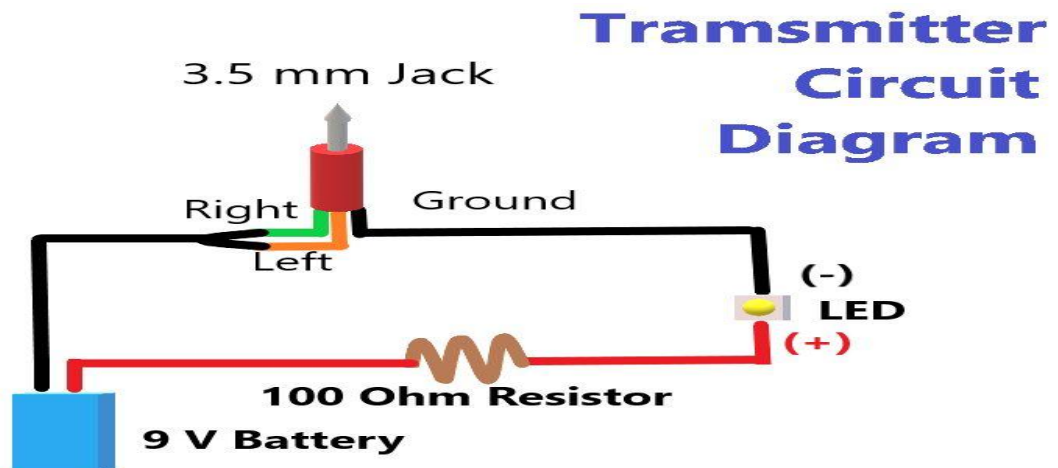
S.No	Components	Quantity	Range
1	Solar Panel	2	5-6Volt
2	LED or neo pixel LED	1	1Watt
3	Aux Table	1	-
4	Jack	1	3.5mm
5	Battery	1	9Volt
6	Pre amplified speaker	1	-

Introduction

Li-Fi(light fidelity) is an extraordinary innovation by Harald Haas in which light is used to transfer information and position between gadgets.

In broader term it is a wireless communication technology in which light is used to transfer data between gadgets. It is able to transmit large amount of data at higher speed to other devices.

This technology has created a spark in techno world. It has tendency to transfer information at much faster rate than Wi-Fi. It has ample of use in today's world like its medical clinics, schools, Li-Fi live streaming etc.



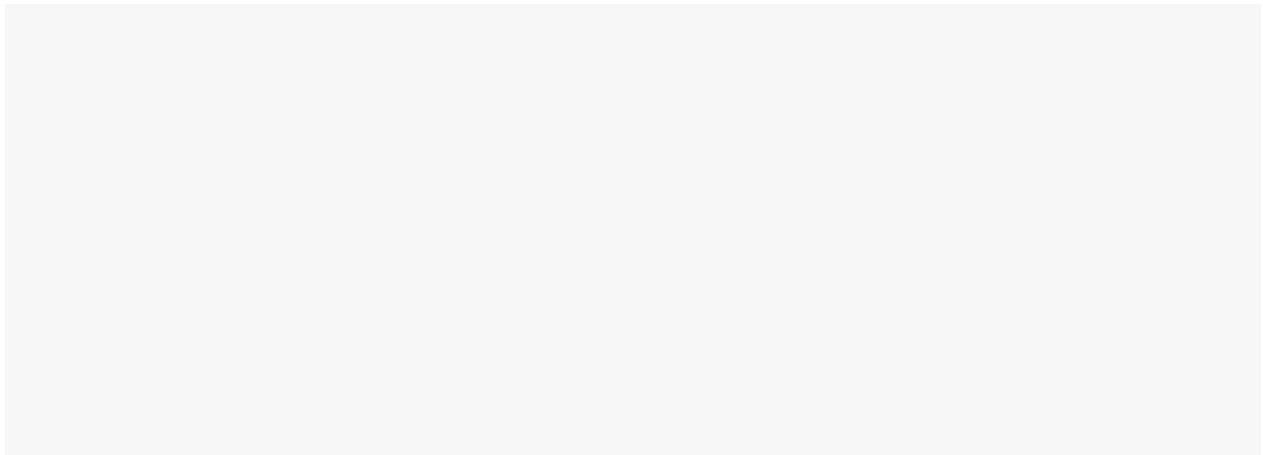


Advantages of LiFi:

- A LED bulb could be your wireless hotspot and a light bulb can be easily find everywhere like in a room, office, vehicle and other places.
- The speed of data provide by these LEDs is 100 times faster than the Wi-Fi speed.
- It is very efficient in terms of cost and energy.
- Unimpeded by radio interference.

Disadvantages of LiFi:

- Too high cost of installation.
- Necessity of light is compulsory.



Applications of Li-Fi Technology

1. Li-Fi and Live Streaming

As per a Go-Globe report, 82% of purchasers like to observe live recordings from a brand than posts, 80% of brand crowd want to observe live video from a brand than read a blog and live recordings are watched multiple times longer than recordings that are not live any longer. Due to the fast rates Li-Fi can reach, it very well may be made accessible in huge shopping centers, sport arena, streetlamps, planes, trains including underground, train stations, air terminals and thus. This permits any client to burn-through rich substance media like recordings just as live spilling from their cell phones or other cell phones almost anyplace they resemble in arenas, prepares and planes gave they are presented to Li-Fi empowered LEDs. Li-Fi live streaming can likewise be useful for the accompanying sort of occasions:-Conferences, Seminars, Meetings, Team Building events, Trade shows, Business diners etc

2. LI-FI TECHNOLOGY IN HOSPITALS

Li-Fi doesn't meddle with radio recurrence gadgets, we can use Li-Fi securely in numerous emergency clinical applications. For instance, in halls, lounge areas, quiet rooms and working theaters, Li-Fi innovation will permit a light correspondence organization, which will eliminate electromagnetic obstruction issues from cell phones and the utilization of Wi-Fi in clinics. Li-Fi can be utilized for constant observing and report of patient development and crucial signs without the need of wires.

Li-Fi can empower patients on their beds interfacing with web news, messages, computer games and web-based media stages through their cell phones. This will assist them with sitting back during their remain. For clinical specialists, Li-Fi will empower the following and migration of the places of key clinical gadgets particularly those routinely shared by various offices. Check the beneath graph for a rundown of the advantages of Li-Fi in emergency clinics.

Credit to Oledcomm - Summary of Li-Fi application to the patient and the parental figures

Oledcomm furnished Perpignan medical clinic with Li-Fi.

3. LI-FI IN SCHOOLS

The wireless network is now a key component to provide new learning experiences to connecting students and teachers in a smart way,also enables learning applications on any mobile device. This technology has also capability to provide security and safety to whole school. Some schools have even started trialing Li-Fi technology in classrooms.

The Kyle academy in Scotland has started trialing Li-Fi in classrooms. Photo credit to Lux

Professor Harald Haas stated that "Li-Fi was born in Scotland at a TED Global talk that I presented in 2011. Seven years later, I'm thrilled to see true Li-Fi deployed for the first time in a school in Scotland".

FUTURE ASPECTS

Harold Haas was responsible for this new technology called Li-Fi(light fidelity). It revolutioned the LED light into web association, which actually suggest that Li-Fi technology is multiple times factor than Wi-Fi. Which means that now access to HD quality movies and show in much factor way. And is very short duration Li-Fi technology will be available on numerous levels.

Today Li-Fi is being used as free gadget along with Wi-Fi but soon in incoming years it may completely replace it from market "we should simply fit a little CPU to each potential enlightenment gadget and this would then consolidate two fundamental functionalities: light and remote information transmission" says Harold Haas, its inventor to make the life of every individual easy and comfortable is the motive of Li-Fi technology.

References

1. YouTube.
2. www.slideshare.com
3. www.wikipedia.org
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