L3D CUBE - 4x4x4 3D LED Cube

Group Members

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A. Project Summary	**(Less than 200 Words)**

64 LEDs makes up this 4 by 4 by 4 cubes, controlled by using a microcontroller.
Each LED can be addressed individually in software, enabling it to display 3d patterns!
The L3D Cube (3D LED Cube) is a three-dimensional array of LEDs, of size 4x4x4 that can display various patterns and with the help of a PIC18F4550 microcontroller.
Probably the most common type of 3D LED display is the LED cube.

B. Project Objectives	

To use PIC18f4550 microcontroller to display different patterns of glowing led.
A 3D LED is a collection of LEDs, connected and arranged in a 4 layers pattern and controlled so that the LEDs can be made to turn on and off in a controlled manner, thus creating interesting and pleasant patterns of light.

C. Microcontroller's Features Used

GPIOs

D. Outcome of the Project

4x4x4 led cube

E. Benefits of the Project	(Please Specify Direct/Indirect benefits)

The main purpose that the L3D Cube serves is in the entertainment sector. For all intents and purposes, it is a high-tech display. Think of it as a three-dimensional display consisting of 64 pixels (or voxels in this case) which can be used to visualize any sort of animation or graphics. The cube has commercial potential due to its advanced and unparalleled design.

F. Status(To be filled by Teacher)	Approved	Not Approved