

```

/*
LedCube.h - Library for controlling a LED cube
Created by Gamaiel Zavala (gzip), October 9, 2009.
Released into the public domain.
*/

#ifndef LedCube_h
#define LedCube_h

#include "WProgram.h"

class LedCube
{
public:
    LedCube(byte size, byte levelPins[], byte colPins[]);

    byte getNumCols();
    byte getNumLevels();
    int getColPin(int r);
    int getLevelPin(int lv);

    void lightOn(byte level, byte col);
    void lightOff(byte level, byte col);
    void lightPulse(byte level, byte col, unsigned int wait = 5);
    void lightSequence(byte seq[], byte length, unsigned int loops = 5, byte duration = 0);
    void lightLevel(byte r, unsigned int wait);
    void lightRow(byte r, byte level, unsigned int wait = 50);
    void lightColumn(byte col, unsigned int wait = 50);
    void lightDrop(byte col, unsigned int wait = 50);
    void lightPerimeter(byte level, byte rotations = 1, unsigned int wait = 50);
    void randomLight(byte numLights, unsigned int wait = 50);
    void randomColumn(byte numColumns = 1, unsigned int wait = 50);

    void enableBuffer(boolean enable = true);
    void invertBuffer(boolean invert = true);
    void clearBuffer();
    void fillBuffer();
    void drawBuffer(unsigned int wait = 5, byte duration = 0);
    byte getBufferAt(byte lv, byte col);

private:
    byte cols;
    byte levels;

```

```
byte *colPins;  
byte *levelPins;  
byte **buffer;  
boolean bufferEnabled;  
boolean bufferInverted;  
  
void light(byte level, byte col, byte val);  
void toggleBuffer (byte val);  
};  
  
#endif
```