



# Аркада

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2 курс КН 6 група

# Задание



Демонстрация



# Лесно писане на игри от програмисти



```
*** static const unsigned int MATRIX_SIZE_X = Monitor::CELLS_IN_X;
*** static const unsigned int MATRIX_SIZE_Y = Monitor::CELLS_IN_Y;
*** static const unsigned int BUTTON_COUNT = Inputs::BUTTON_COUNT;
*** static const unsigned int JOYSTICK_COUNT = Inputs::JOYSTICK_COUNT;

*** void show(const Cell (&newMatrix)[MATRIX_SIZE_X][MATRIX_SIZE_Y]) const;
*** void clear() const;

*** int button(int id) const;
*** int joystickX(int id) const;
*** int joystickY(int id) const;
*** int joystickD(int id) const;
```

```
void setup() {
    Arcade.clear();

    Games::play("testGame");
}
```



# Бюджет и електронни компоненти

Електронни компоненти: 210лв.

3д филамент : 60лв.

Изгорели електронни компоненти: 60лв.

Общо 330лв.

Ел. Компоненти

Arduino mega 2560 PRO L

6бр. WS 2812 LED-Matrix 16x16

5бр. Бутони

2бр. Joystick Dual axis XY module

Захранващ блок 220AC -> 12DC

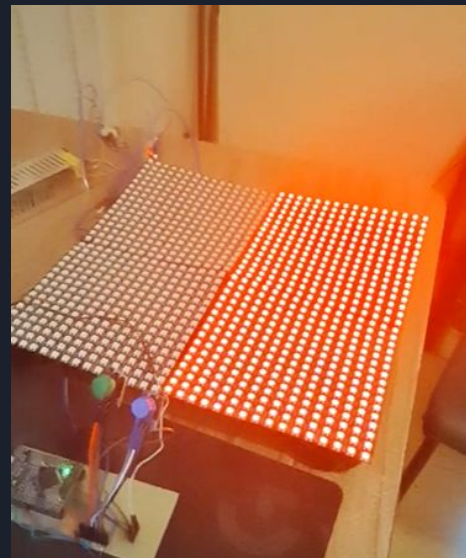
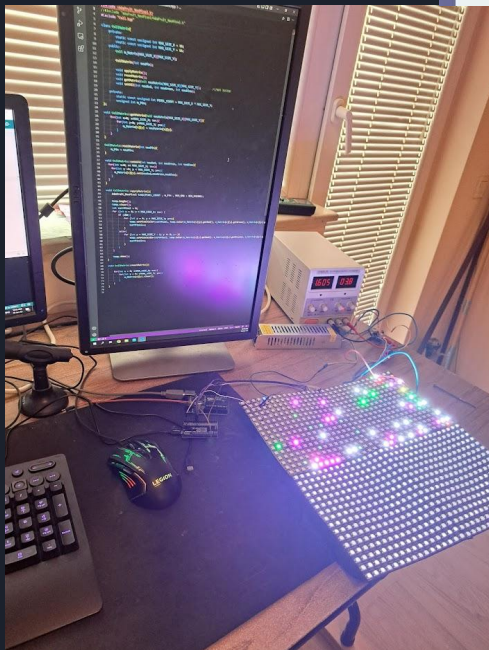
2бр. Конвертор на напрежение 12DC ->  
5DC

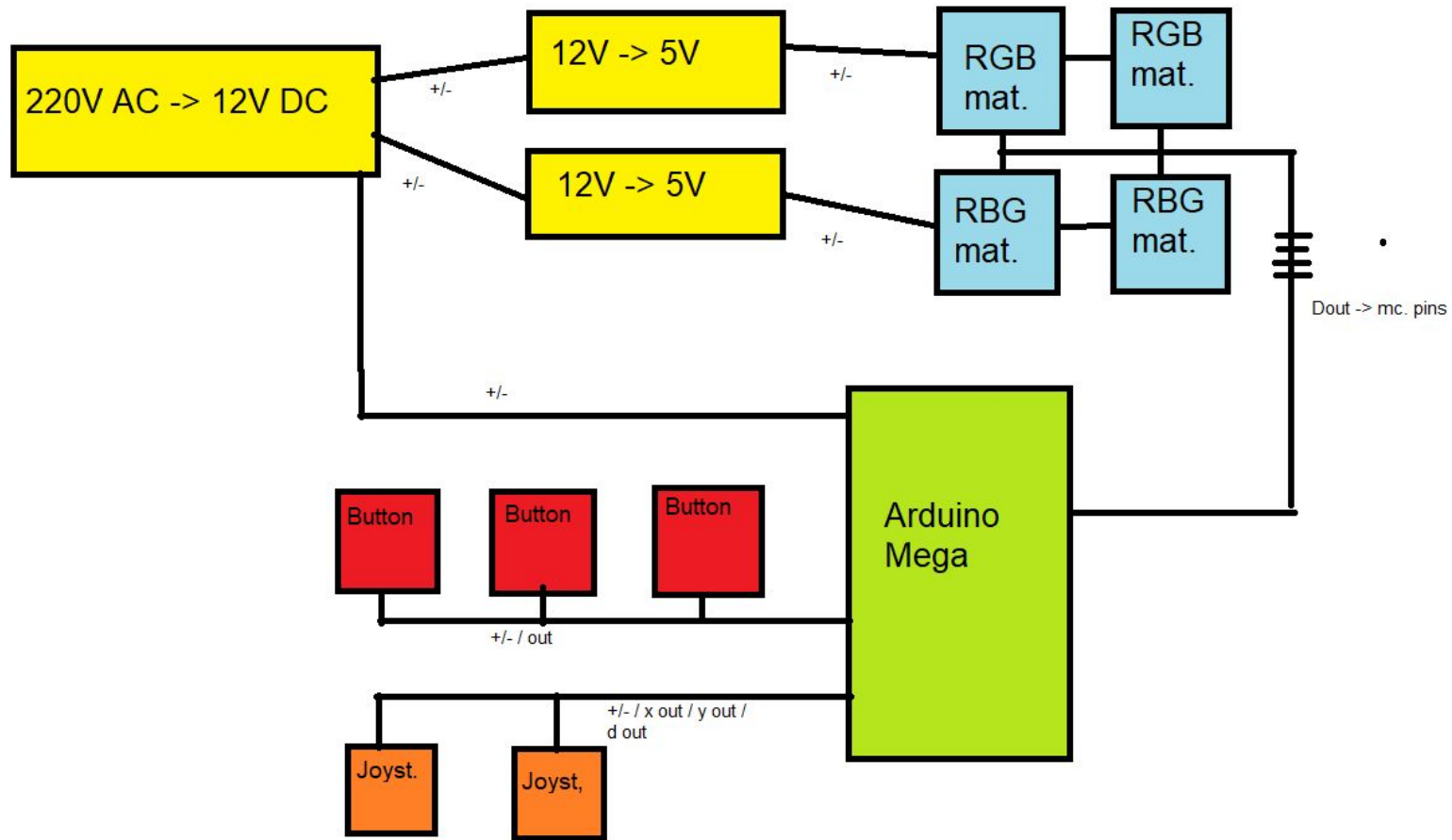
Други ( джъмperi, болтове ,гайки, тенол, ...  
)

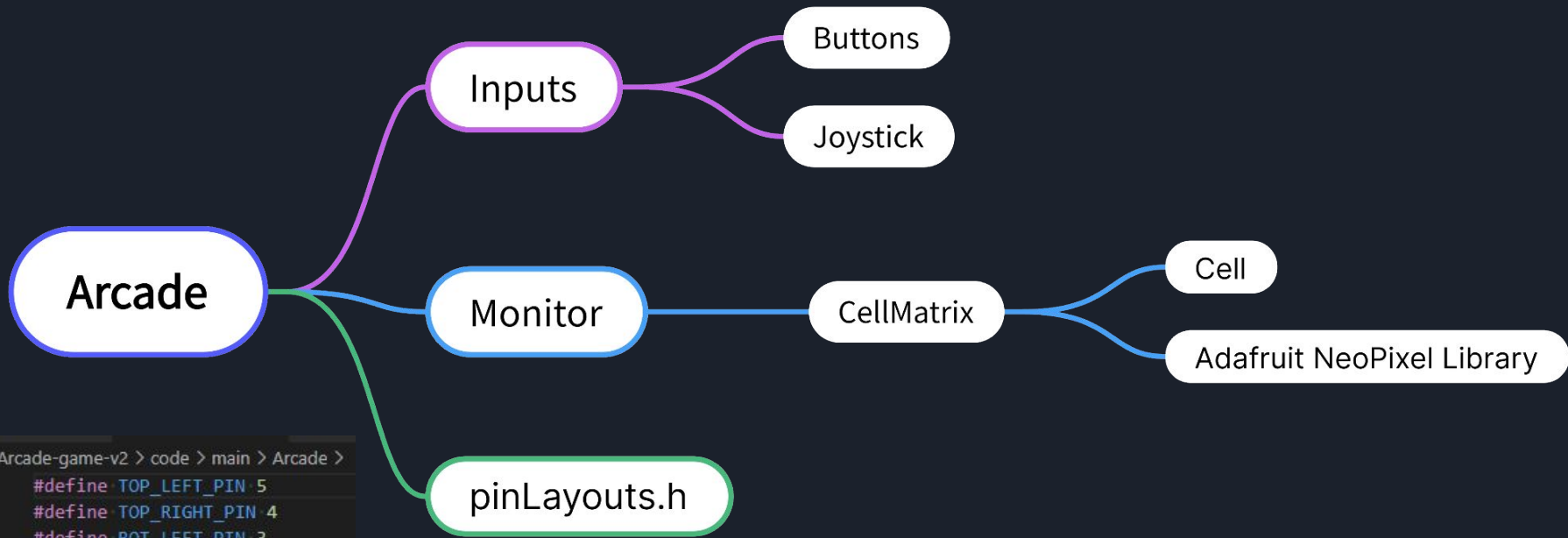
# Разработка и проблемы

Output Serial Monitor

```
Sketch uses 8524 bytes (3%) of program storage space. Maximum is 253952 bytes.  
Global variables use 6269 bytes (76%) of dynamic memory, leaving 1923 bytes for local variables. Maximum is 8192 bytes.
```







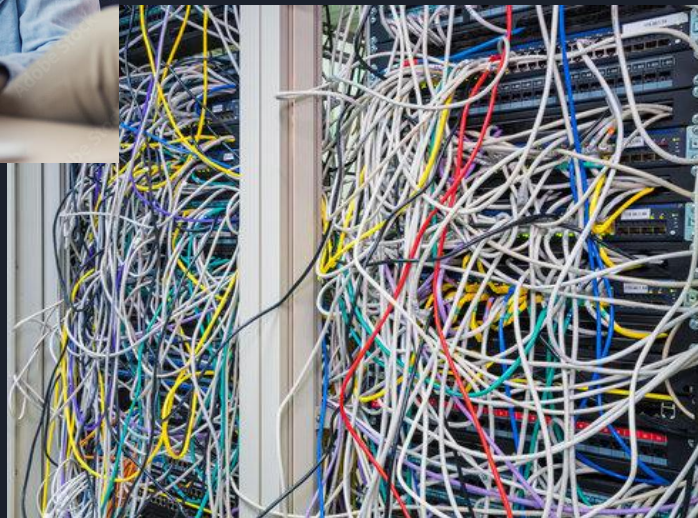
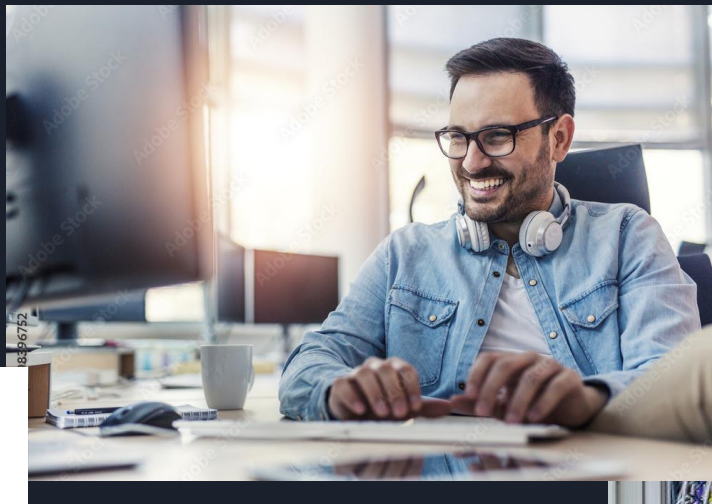
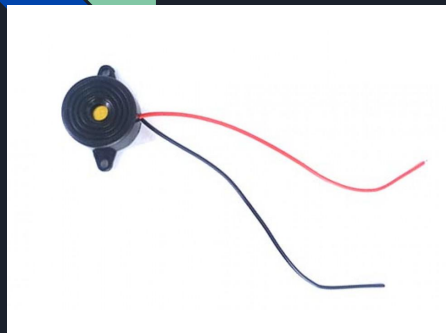
> Arcade-game-v2 > code > main > Arcade >

```
1  #define TOP_LEFT_PIN 5
2  #define TOP_RIGHT_PIN 4
3  #define BOT_LEFT_PIN 3
4  #define BOT_RIGHT_PIN 2
5
6  #define BUTTON_1_PIN 6
7  #define BUTTON_2_PIN 7
8  #define BUTTON_3_PIN 8
9
10 #define JOYSTICK_1_X_PIN A0
11 #define JOYSTICK_1_Y_PIN A1
12 #define JOYSTICK_1_D_PIN 9
13
```





# Идеи за подобрение



Благодаря за вниманието!

