

Lab 06 – Small game 3

Návrh a vývoj počítačových hier
Tvorba a dizajn počítačových hier

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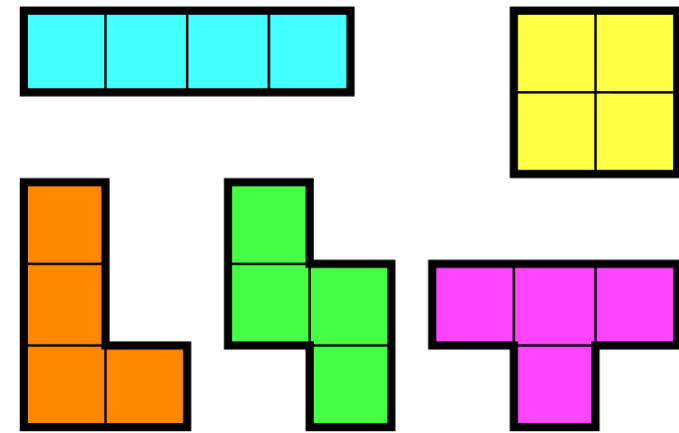
2. 11. 2023

Next deadline

19. 11. 2023

Submit idea pitch **to AIS**
(FMFI students via email)

Task – Tetris



1. 2D side view, **the play area is a 2D array (grid)**
2. Spawning random tetrominoes controlled with WASD/arrows
3. Shapes move down by 1 grid unit every second
4. Shapes are periodically falling and stay after falling on ground
5. Show in UI the upcoming tetromino
6. Show “score” in UI – number of tetrominoes spawned
7. If you have time
 - Add button that restarts the game when clicked
 - If a new tetromino cannot be spawned (blocked grid cells), show game over screen
 - Add shape rotation
 - Full line disappears and blocks fall down

```
TMPro.TextMeshProUGUI myUiText;
UnityEngine.UI.Image myUiImage;
Sprite[] mySprites;
List<List<int>> my2DArray;

void Start()
{
    myUiText.text = "Hello, world. " + Time.time; // Set text for UI Text
    myUiImage.sprite = mySprites[1]; // Change sprite for UI Image

    my2DArray = new List<List<int>>(); // Create new 2D array
    my2DArray.Add(new List<int>()); // Add new 1D array as a row
    my2DArray[0].Add(7); // Add new item to 1D array (position [0,0])
    my2DArray[0].Add(5); // Position [0][1]
    my2DArray[0].Add(3); // Position [0][2]
    my2DArray[0].Add(1); // Position [0][3]
    if (my2DArray[0][3] == 1) // Read item from 2D array
    {
        //...
    }
}
```