Allowed Movement	Game Grid/States		
Up	3	4	5
Down	0	1	2
Left			
Right			

Adjacency Matrix

	0	1	2	3
0				
1				
2				
3				
4				
5				

```python
def generate_adjacency_matrix(grid_size):
    num_states = grid_size[0] * grid_size[1]
    adjacency_matrix = np.zeros((num_states, 4), dtype=int) - 1
    for i in range(num_states):
        row = i // grid_size[1]
        col = i % grid_size[1]
        if row > 0:
            adjacency_matrix[i, 0] = i - grid_size[1] # Down
        if row < grid_size[0] - 1:
            adjacency_matrix[i, 1] = i + grid_size[1] # Up
        if col > 0:
            adjacency_matrix[i, 2] = i - 1            # Left
        if col < grid_size[1] - 1:
            adjacency_matrix[i, 3] = i + 1            # Right
    return adjacency_matrix
```