**The Use of Patterns in your design**

We want to reduce the amount of repetitive code that we produce. To do this we want to look at what possible patterns there are in the game.

If we look at how we decided to generate the colour palette, we can see this. When Grid is designing each cell, it calls from Data to find what colour it is supposed to be. This was meant so that we do not need separate classes to design the exact same board but with different colours. This is also implemented when we colour the robots. Instead of assigning them colours individually, we referenced the array of colours to assign the correct one.

Moving to a different line of thinking, when navigating to from the main menu to different menus in order to change different settings. We wanted the processes to mimic each other so that it is easier for the user to understand what is going on. This was also done so that the flow of the code could follow the same pattern with only slightly altered. Building on this, the simple and complex boards follow similar patterns so the code does as well. Again, making it easier to read and understand the code.

This ideas of incorporating as much as possible into the code, and having the different classes follow the same logic was attempted through-out the program