# ADAPTING AI

COMP250 - MATT LAW

INTRODUCTION

To prevent players from using only the optimal strategy and exploits, I will be developing an AI agent for a simple FPS that will adapt to how the player is playing in order to force them to switch up their playstyle.

I will be using a two "brain" approach inspired by the systems used in 'Alien: Isolation' and 'Metal Gear Solid V'. This approach will use two separate scripts communicating with each other in order to calculate the best instructions. I will refer to each side as the 'Manager' and 'Control' halves.
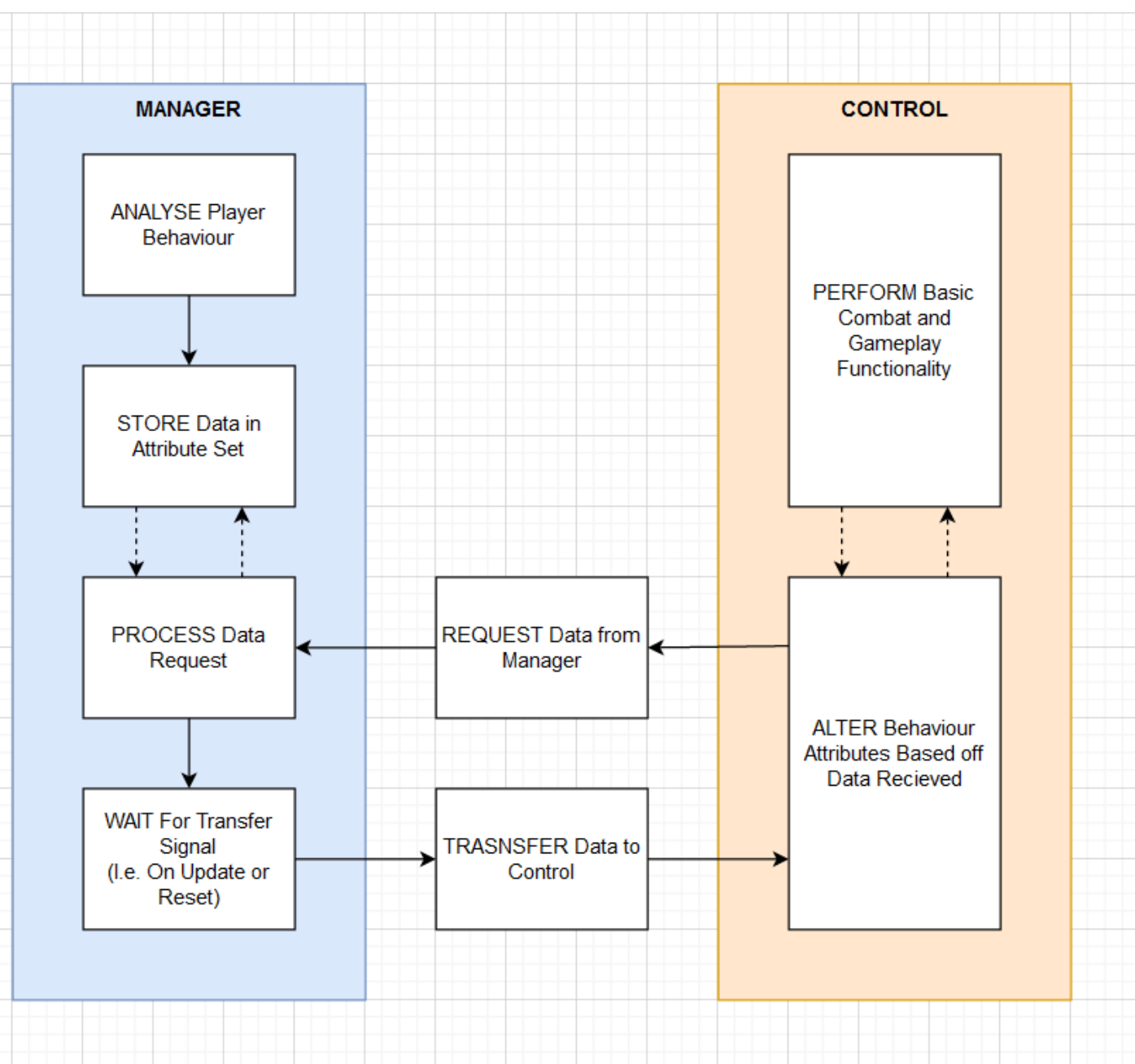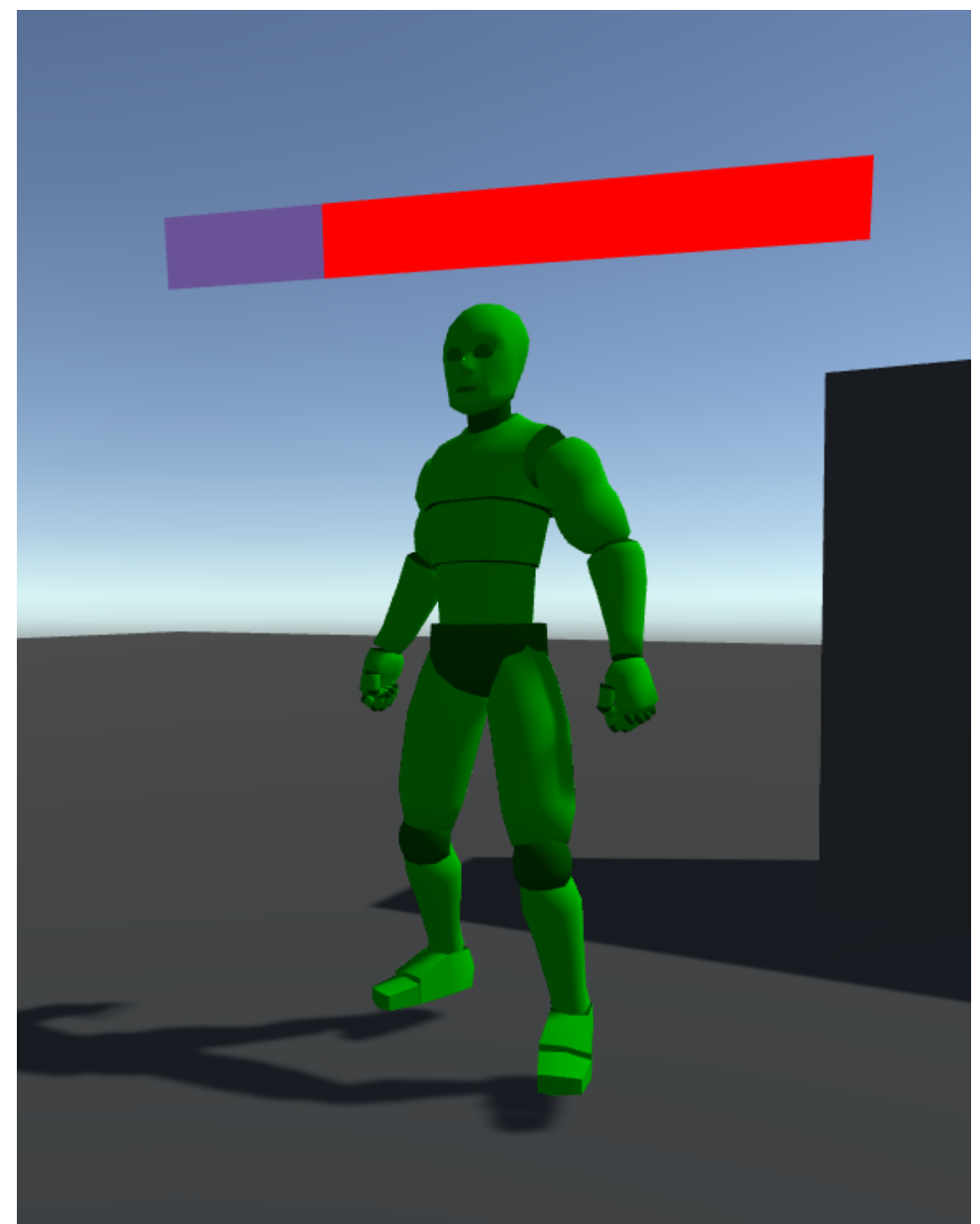

MANAGER

The 'Manager' half will keep track of all the players stats as well as their current position. For example, their accuracy and preferred weapon. It will also control which of this information is accessible to the 'Control' section.

CONTROL

The 'Control' half is responsible for the agents actions and states. This half will have very little information to go off, and so must communicate with the 'Manager' to adapt it's playstyle.

CATEGORIES FOR ADAPTATIONS

Based off the player's stats, the Manager will categorise the player's behaviours into four sections and assign a rough value for each, this will then be used when calculating the agents attributes. Such as the percentage of health required to enter the recovery state.