PATHFINDING AND DECISIONS FOR
ARTIFICIAL INTELLIGENCE

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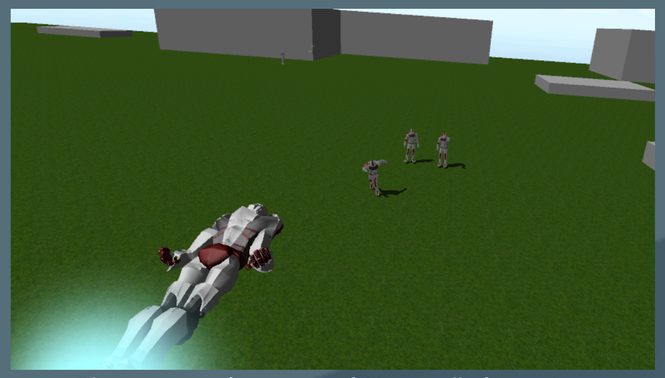
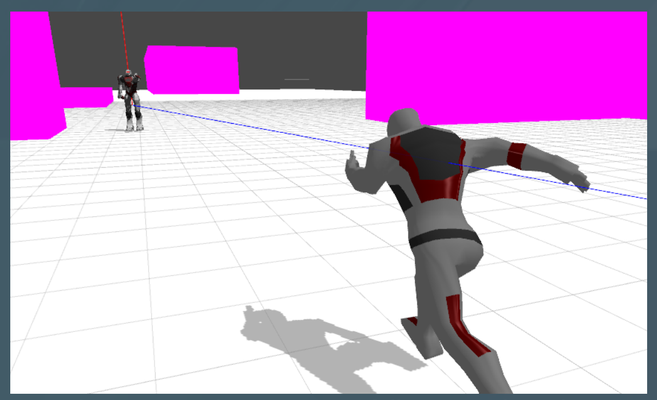
Artificial Intelligence is used to give computer controlled characters more human like behaviours.



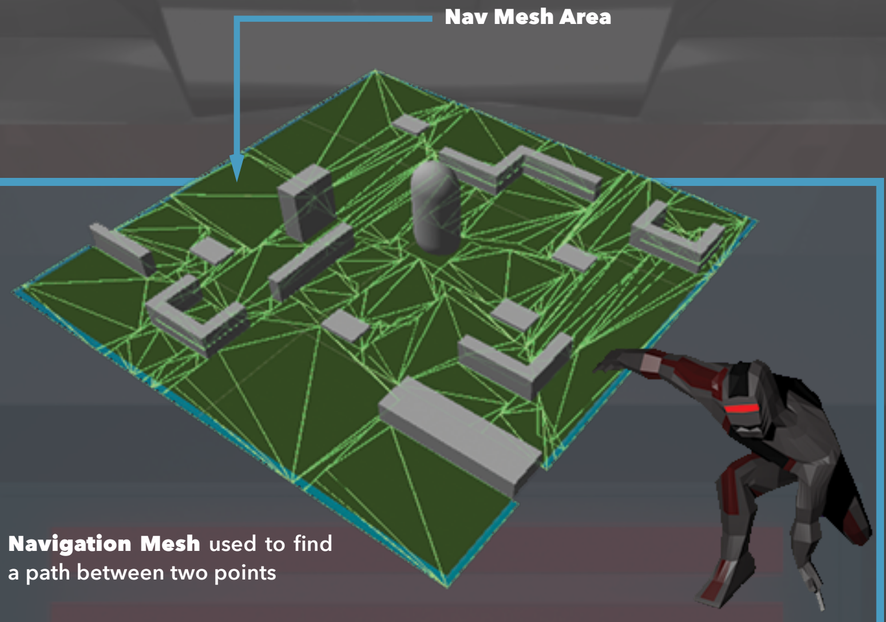
Player approaches group of AI controlled enemies

In this project, an **AI** was developed that aimed to incorporate the best methods which are currently available to the video game industry.



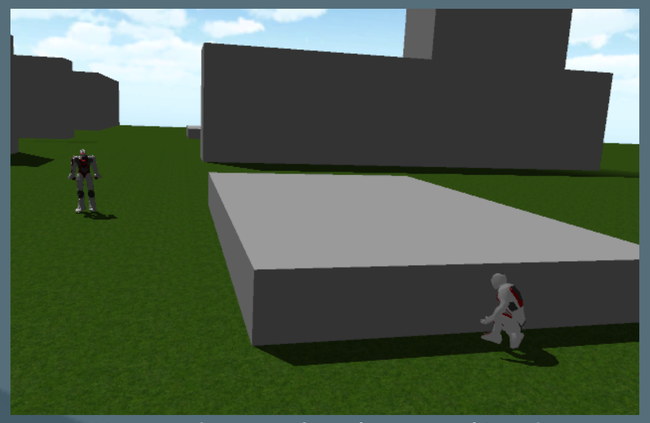
Early prototype showing enemy following path to player

Pathfinding was used to navigate through the gaming world, while **behaviours** were used to give the enemies intelligent actions and choices.



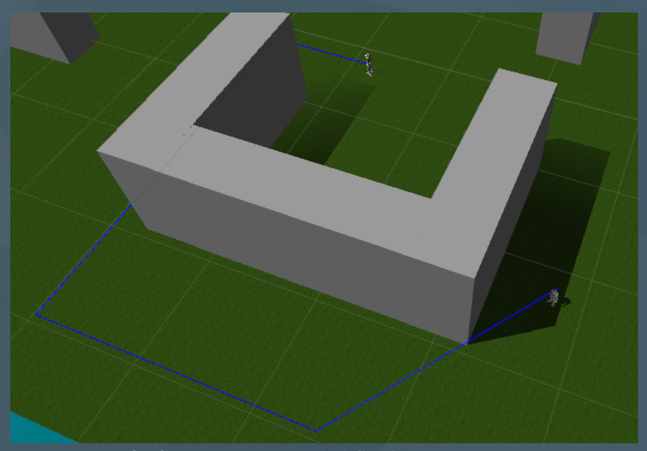
Navigation Mesh used to find a path between two points

A **Navigation Mesh** generator was implmented which automaticlally maps out walkable areas of the environment. This allows an algorithim such as A* to be used to create a path free of obstacles.



An AI agent takes cover from the approaching player

Tactical **path** mechanics were implemented and used by the AI team, such as **flanking** maneouvers and seeking cover.



Path showing a potential flanking maneover

Results from the evaluation of this project showed that teamwork behaviours **improved** the AI's ability. However, this had no effect on how **enjoyable** the game was to play.