**Game Name:** Need for ASCceleration

**Team Name:** ASCII Free

**Genre:** Maze navigation and item collection

**Game Description**

Players control a car driving around a maze from the top-down perspective. They will have to collect a series of flags placed in the maze. Once all the flags are collected, the level is completed. Players will also have to pick up gas to keep their car fueled up and avoid colliding with enemy cars. If they run out of fuel or hit an enemy, they lose a life. Lose all lives, and the game is over.

**Technical Features**

* Enemy pathfinding
* Collisions that do not block movement

**Artistic Assets**

* Player Character, 12x4, 3 frames of animation
* Enemies, recolored player sprite
* Wall, variable size, no animation
* Flag, 3x4, 16 frames of animation
* Gas Tank, 3x4, 4 frames of animation

**Implementation Plan**

* Pathfinding: Each junction of the maze will have a spriteless GameObject that doesn’t block movement, but still triggers a collision event of our own make. When this event is received by the Enemy’s eventHandler, it calculates the shortest path to the player (or a point near the player) via A\* search. Our heuristic function will be the distance from the given point to the player. If the player is not found within a certain distance, a random direction is chosen instead
* Non-blocking collisions: All GameObjects have a property called “blocks\_move”. In the WorldManager collision detection, if objects collide and one of them does not block movement, then the objects move normally, then send the collision event.

**Schedule/Distribution of Work**

All tasks are listed in the order in which they will be completed.

Core features:

* A single, working level. (Matt)
* Pickups (Matt)
* A Player car with placeholder assets that can be controlled. (Jeffrey)
* Enemies that pick random paths (Jeffrey)
* Wall/Pickup Collisions (Matt)

All core features are to be completed by Friday, February 17th.

Required Features:

* Proper enemy pathfinding. (Jeffrey)
* Flags/Gas implementation (Matt)
* Lives/Enemy collisions (Jeffrey)
* Sprites and animations (Matt)
* Instruction screen (Jeffrey)
* Multiple, pre-made levels. (Matt)

All required features are to be completed by Friday, February 24th.

Desired Features:

* Victory Screen (Matt)
* Start Screen (Jeffrey)
* Game Over Message (Jeffrey)