# Gravity Runner

short line

# Team Members

1. Joe Boylson – Creator, Developer

# Summary

Gravity Runner will be an endless runner styled game where the player will can switch between gravity (the user “falls” to the bottom of the screen) and antigravity (the user “falls” to the top of the screen) to avoid obstacles.

The longer the player survives, the higher the score.

In the simplest form, obstacles will be simple objects flying through space

There may also be “drones” which will shoot projectiles at the player and obstacles that are affected by the direction of the gravity. The player will have to use other obstacles to “block” or “catch” them.

There may also be platforms on which the player can land.

There may also be different effects which the player can use:

* “Ghost Mode”: nothing can harm you and you pass through anything for a duration
* “Zero Gravity”: can be activated by pressing a secondary button; no gravity for a certain period; requires a “charge” / can only be used once in a duration

# Technologies

1. HTML Canvas API
   1. This will be where the game is displayed
   2. requestAnimationFrame will render the canvas at 60fps
2. Greiner–Hormann clipping algorithm [[link](https://cdn.rawgit.com/w8r/GreinerHormann/master/dist/greiner-hormann.min.js)]
   1. Will use this algorithm to detect collisions
   2. Behavior on a collision will be ased on the “object” (player, obstacle, platform, etc)