# Game Design and Features List (LAGS):

#### Unique aspects:

- New vehicles with unique abilities
  - o Glider, Time Machine, etc.
- Other unique movements
  - Backwards or forwards using arrows
  - o Rechargeable ability to slow down movement through stage entirely
- Potential new interactants
  - Interactions with boosters or with power ups
  - o Add new items in the shop

## 5-point features (and their rough time estimates):

- High scores saved locally so you can see when you are at your best (5 days)
- Player customization, the color of the player, the color of the jetpack (1 week, with constant updates as we come up with new ideas)
- Difficulty levels, the higher the difficulty the faster the background moves (1 week)
- Debug overlay that shows the FPS and time spent in each subsystem (2 days)
- An emergency button so the screen looks like homework when a teacher walks by (2 days)
- Subtitles for in game speaking, or start of game speaking (3 days)
- Collisions and interactions with stuff like coins and scientists (1 week)
- Random characters running on the ground (with animations could take a little longer than a couple days) (5 days)
- Sound effects for interactions and collisions (2 days)
- Keep track of the distance the user travels (2 days)
- Music in the background (2 days)

# 10-point features:

- Uses real gravitational physics (5 days)
- Space bar + arrow for movement: space moves up/down, arrows move back/forth (3 day)
- Option menu with pause button (4 days)
- Randomly placed clusters of coins (4 days)
- Randomly placed missiles (1 weeks)
- Red lasers: 2 are automatically activated (5 days)
- Yellow lasers that are angled and randomly generated (insta-kills on contact) (1 week)
- Different tilesets for the background (scramble 5-6 different tilesets so it looks random) (5 days)
- Gadgets (2 weeks)
  - o Double coin: 2x each coin's value
  - Magnet: Attracts nearby coins without touching them directly
  - o Hamster ball: roll a few meters after you die inside a hamster ball

- o Gold Vehicles: Vehicles give you more money
- Different jetpacks (1 week)
- Booster tile that pushes you forward and lets you go through any lasers along the way (1 week)
- Missions to give you something to work for (2 weeks)
- Pets like a dog (1 week)

### 15-point features:

- Vehicle (separate implementations of each vehicle could be a weekly target) (2.5 weeks)
  - Lil Stomper
  - Gravity-switcher
  - o Mr. Cuddles (The Dragon)
  - Motorcycle Guy
  - o Profit Bird
- Scale screen for different device sizes (2 week)
- Gameplay is synchronized to the beat of music (1 weeks)
- Global leaderboard (hosted in a server somewhere) (1 week)

## Dependencies:

Some tasks depend on other tasks, so here's a rough outline of the order that core features should be implemented. Once these are done, the other tasks should work.

- 1. Get the screen to display with a certain FPS
- 2. Display a scrolling background
- 3. Display the character with basic movement (space for up/down, arrows for left/right) + interaction with gravity
- 4. Randomly place lasers on the map and make them kill the character on contact
- 5. Get background music working
- 6. Somehow keep track of the distance travelled and coins