

## Project name: Run For Your Life!!!!

(Race Wars)

Team members and roles (**will assign additional roles later**):

James Nichols - Programmer/Project Leader

Brian Munger - Programmer

Keona Abad - Programmer

Shi-Ru Huang - Programmer

Connor Sun - Programmer

Calvin Chen - Programmer

Evan Albert - Programmer

Git Repo Link:

**Organization:** <https://github.com/SoftwareEng2-Team>

**Repository:** <https://github.com/SoftwareEng2-Team/runio>

Communication tools and rules:

Discord - <https://discord.gg/fjCdaebj>, respond within a day.

Text Message (Group Chat), respond within half a day (in reasonable hours).

GitHub -

Like Paper.io

Abstract: Competitive running game that simulates territory acquisition via a completed running route. Players compete by claiming the most space on a shared real-world map each week. To claim space one must create and complete a running circuit of any length. Upon completion of said circuit, players are rewarded with all map space within that circuit being claimed as their territory regardless of whether it is already claimed. The map displays currently existing territories and all in-progress routes by players. A leaderboard will also display the current square miles each player has claimed for that week. All scores and territories are reset every week and the top player is given a flair for the following week.

Goal: Have a working game that takes in user location and track their movement. This would work similarly to games like Paper IO and allow users to compete against each other each day/week claiming land.

Current practice: Similar applications exist to motivate users to engage in physical activity while progressing in-game. For example, Pokemon Go utilizes the user's location to catch Pokemon, access Pokestops, and battle other trainers. We aim to develop a game that encourages users to participate in healthy movements such as running and walking by creating friendly competition. Other mobile applications exist, such as Strava and Nike Run Club, that allow users to record their runs. However, creating a community-based game will motivate users to compete against each other by running.

Novelty: We will use JavaScript to code the program with a location-tracking API. This allows the service to receive live updates and allows other users to compete for land. While other apps offer interactive maps that users can interact with, our game allows people to compete over the land of the map in a territory-claiming style similar to paper.io.

Effects: New and improved version of other .io games for runners but with required real-time physical activities such as routes to run to claim plots of land. It will create friendly competition for local runners to compete with each other when it comes to speed and distance.

Technical approach: Planning to use JavaScript/HTML for the app layout and general display features. Plan to use Python for location grabbing and more technical back-end features.

Risks: Location tracking since none of us have experience with that. But we might solve it by using JavaScript. Mobile development is a concern because we collectively have little to no experience in its development.

Major features:

1. Location tracking that maps the path the user runs.
2. Involve friendly competition by allowing users to go against other users, fighting to claim the most amount of land.
3. Allow users to 'cut off' each other, and eliminate one of their lives. A user can cut off another user's path by running through their path and completing a route before that user.
4. Leaderboard that shows the top runners and largest land owners currently.

Stretch goals:

1. Security access for IP address.
2. Expand the game map outside of the Corvallis OSU campus.
3. Monetize the game to make money.
4. Stop cheating (using a car/bike).