**Preamble:**

Download this: <https://desktop.github.com/>

Repository here: <https://github.com/DXVII/Part-C>

**Github:**  
Pull = download  
Commit = attach comments to describe what you’ve changed (logging)  
Push = upload to repository (please don’t forget this!!!)

**How to github:**

1. Make new branch
   1. Do code
   2. Commit changes
   3. Push changes
2. Pull to master branch if you think it’s stable

**Project: Priority Iterations (how I think we might go about project)**

**Simple goal (easier, can lose)**

1. Car follows a mostMap algorithm that tries to explore as much of the map as possible (i.e. goes to parts of map it doesn’t know about based on own map)
2. Upon seeing biggest key, Car follows specific goToTile algorithm to that key then all proceeding keys
   1. If no proceeding key go back to step 1
   2. If all keys found go to exit (might not be a separate case, exit = key 0)

**Lava Life preservation (medium, medium risk lose)**

1. Car follows a mostMap algorithm that tries to explore as much of the map as possible (i.e. goes to parts of map it doesn’t know about based on own map)
   1. Avoid non-health traps (if possible) while route planning
   2. If health is less than 60% stay on health trap until 100% (can be further optimised later)
2. Upon seeing biggest key, Car follows specific goToTile algorithm to that key then all proceeding keys
   1. If no proceeding key go back to step 1
   2. If all keys found go to exit (might not be a separate case, exit = key 0)

**Traps and efficient path planning (hard, survives game)**

1. Car follows a mostMap algorithm that tries to explore as much of the map as possible (i.e. goes to parts of map it doesn’t know about based on own map)
   1. Avoid non-health traps (if possible) while route planning
   2. Calculate life lost along path and determine time on health trap accordingly
   3. Determine if you can go through a GrassTrap (cannot turn, stuck in dead end)
2. Upon seeing biggest key, Car follows specific goToTile algorithm to that key then all proceeding keys
   1. If no proceeding key go back to step 1
   2. Account for MudTrap effect on time (no acceleration)
   3. If all keys found go to exit (might not be a separate case, exit = key 0)

**Notes**

**Traps:** does stuff to car, health, acceleration, turning ability

(ordered in order of impact to game)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Change Health  (per unit time) | Can Accel? | Can Turn | Impact? |
| LavaTrap | -20 | Y | Y | Kill car => lose game |
| GrassTrap | 0 | Y | N | Stuck in dead end  => lose game |
| HealthTrap | 5 | Y | Y | Heals car => survive game |
| MudTrap | 0 | N | Y | Slows car  => lower score |