



King of Buggies Design Document

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Section 1: Game Design

1.1 Game Description:

King of Buggies is a time based king of the hill game where the winner is determined by the first player to have been the Golden Buggie for a total of 2 minutes. When the game starts an AI opponent will be the Golden Buggie and there will be four other opponents that are trying to become the Golden Buggie. Once a player or another AI takes down the Golden Buggie they become the Golden Buggie.

1.2 Style of Gameplay:

The game will have a gameplay style that is reminiscent of a Battle mode of a game like Mario Kart. Powerups will be in the game and maps will contain speed pads that can be used to increase speed. However the core of the game will have a “King of the Hill” type feel, where the Golden Buggie is the King.

1.3 Game Goals:

- Being the Golden Buggie should be rewarding
 - The player is immediately rewarded for becoming the Golden Buggie by having a faster vehicle
- Players should not only have incentive to compete to be the Golden Buggie but have motivation to go after other players
- Interaction should be encouraged between players chasing the Golden Buggie. To facilitate this, it should be a viable strategy to target other players to prevent them from catching the Golden Buggie first.
- The controls should be make it feel like the player is driving a Buggie
- King of Buggies should be able to handle 60fps for single player and 30fps for split screen

1.4 User Interface:

The user interface assists the player during a match by doing the following:

- Highlight Golden Buggie so their position is always known to other players
- Display the current score of each player

- Indicate which player is the Golden Buggie by having their score bar glow
- Display a radar, allowing players to see who is close and to help the Golden Buggie avoid capture

1.5 Game Genre:

King of Buggies will be a 3rd person battle racing game, similar to the battle mode in the Mario Kart series of games.

1.6 Branding:

King of Buggies is its own brand.

1.7 Key Components:

- The game should feature a noticeably different AI for the Golden Buggie and the other AI Buggies
- Being able to choose a cart with a upgraded powerup should aid players in personalizing their approach to taking out the Golden Buggie
- Powerups and “King of the Hill” aspect will make the game feel unique to other Battle Games

Section 2: Gameplay

2.1 Game Rules:

- Making contact with the Golden Buggy will make you the Golden Buggy.
- Upon starting the game, the Golden Buggy will be an AI opponent. Once the initial Golden Buggy has been taken out there will be one less player because the AI/player will become the new Golden Buggy
- The Golden Buggy will have greater stats than all the other carts, however it will be balanced to ensure fairness
- The Golden Buggy will have its own unique set of powerups
- Players can use powerups on the Golden Buggy, or on other Players
- The winner of the game is the Player that has been the Golden Buggy for a total of 2 minutes
- In the unlikely event that no Player becomes the Golden Buggy, the match will result in a draw
- When a player becomes the Golden Buggy, they will be given a grace period which they can use to escape
 - In addition, there will be a pulse that will knock back other Buggies near the new Golden Buggy, giving it a space buffer
- Negative powerups will have less of an effect on the Golden Buggy than on regular Buggies (i.e. it will be slowed instead of stunned)

2.2 Driving Mechanics

The basic driving mechanics will be similar in a lot of ways to kart racing games such as Mario Kart and Crash Team Racing. Buggies will be able to drift to make sharp turns, and jump to give extra air over jumps.

In addition, there will be some conditions where the player can get a sudden burst of speed without the aid of items. If the drift is held long enough, the player can press a button to receive a speed boost. Making a sufficiently large jump will also result in a boost upon landing. Incorporating these boosts helps encourage less direct and more dynamic approaches to driving. It's more fun to go off a jump and drift around a corner than it is to drive in a linear path towards the Golden Buggy, this will make those approaches more viable.

Carts will be able to tumble, but they will always land upright. Tumbling will only happen when coming in contact with large amounts of force, such as by an item or another player. The car will always remain upright during the course of ordinary driving.

2.3 Feature list:

Golden Buggie:

- The Golden Buggie is faster and more resilient than the other buggies.
 - Items that would otherwise stun the Golden Buggie, instead slow it temporarily

Arena Gameplay:

- Maps will be of a medium to large size so that players will have a challenge catching the Golden Buggie, yet still small enough that the distance between a player and the Golden Buggie ever becomes too large.

Special Powerups per Buggie:

- When starting the game each player will be given the choice of 4+ carts. These carts will have different statistics, and will have a description of the cart's upgraded powerup

Local Multiplayer:

- Up to four players can play King of Buggies at once. The game will have split screen gameplay to accommodate for this.

AI Opponents:

- There can be 0 to 4 AI players in the game at a time (four occurring at the starting of a single-player game)
- The AI will be able to handle both chasing the Golden Buggie and evading other players as the Golden Buggie

Coins:

- Each player that is not the Golden Buggie can collect a number of speed boost items that will increase the player's top speed.
 - The Golden Buggie is not able to collect coins, since it has a fixed speed which is higher than the starting speed of the regular Buggies.
- Coins are dispersed around the level. They disappear when collected, and reappear after a certain period of time

- Collecting multiple coins will increase the player's speed until the player has collected ten, but this may be subject to change
- Getting hit by an offensive powerup will cause that player to drop some of their Coins, which can then be picked up by other players before disappearing after a short time

Boost pads:

- Our tracks will contain speed boost pads; these will allow the Buggie to gain a speed boost when they drive over it

Powerups:

- These are items that players can pick up separate from the speed boosts
- Once picked up, the player can activate their Powerup by pressing a button
- Picking up three Powerups without using one will give the player a more powerful Powerup specific to their cart
- Players will have access to their upgraded power ups as both the Golden Buggie and a Regular Buggie

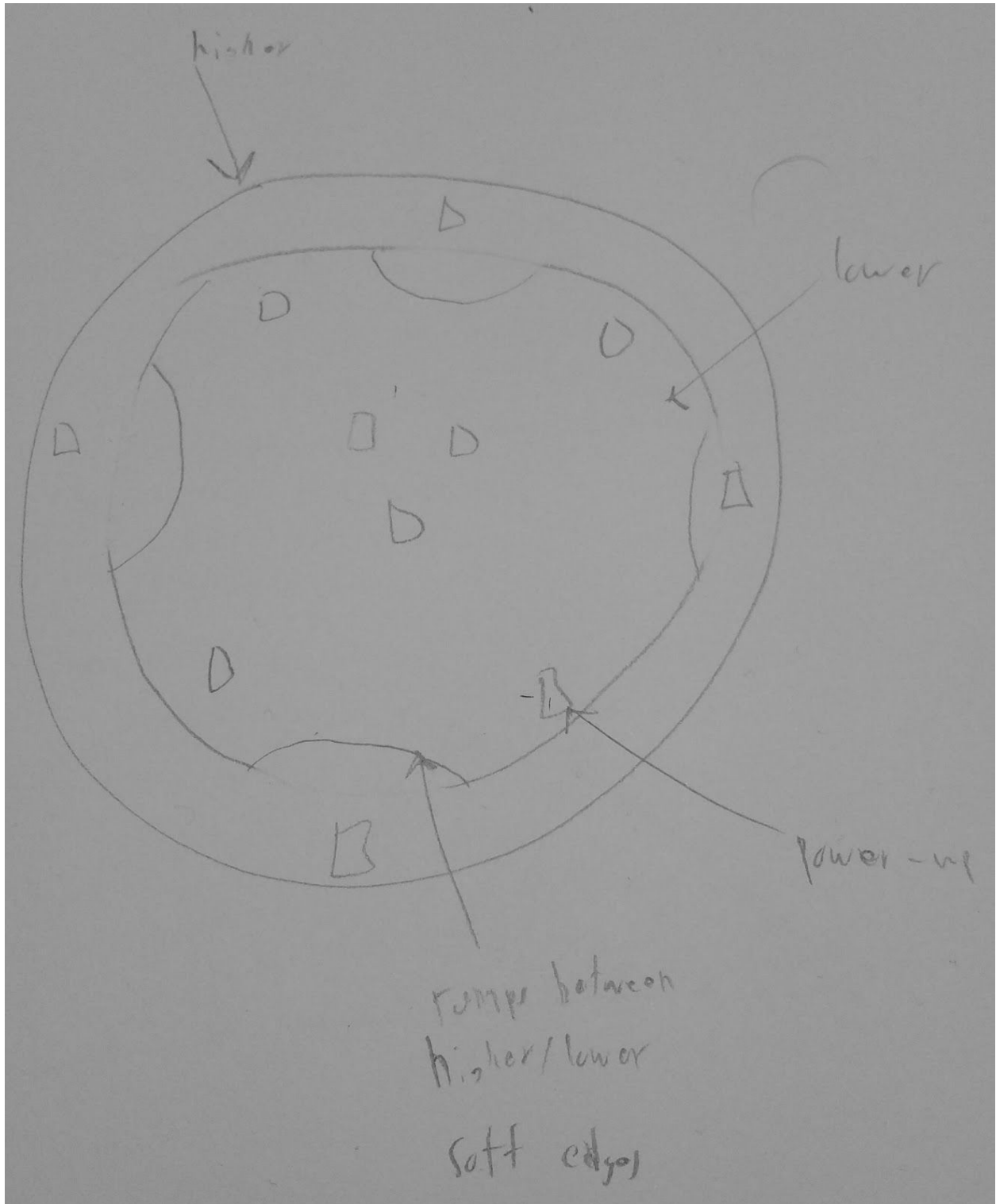
2.4 Powerup List:

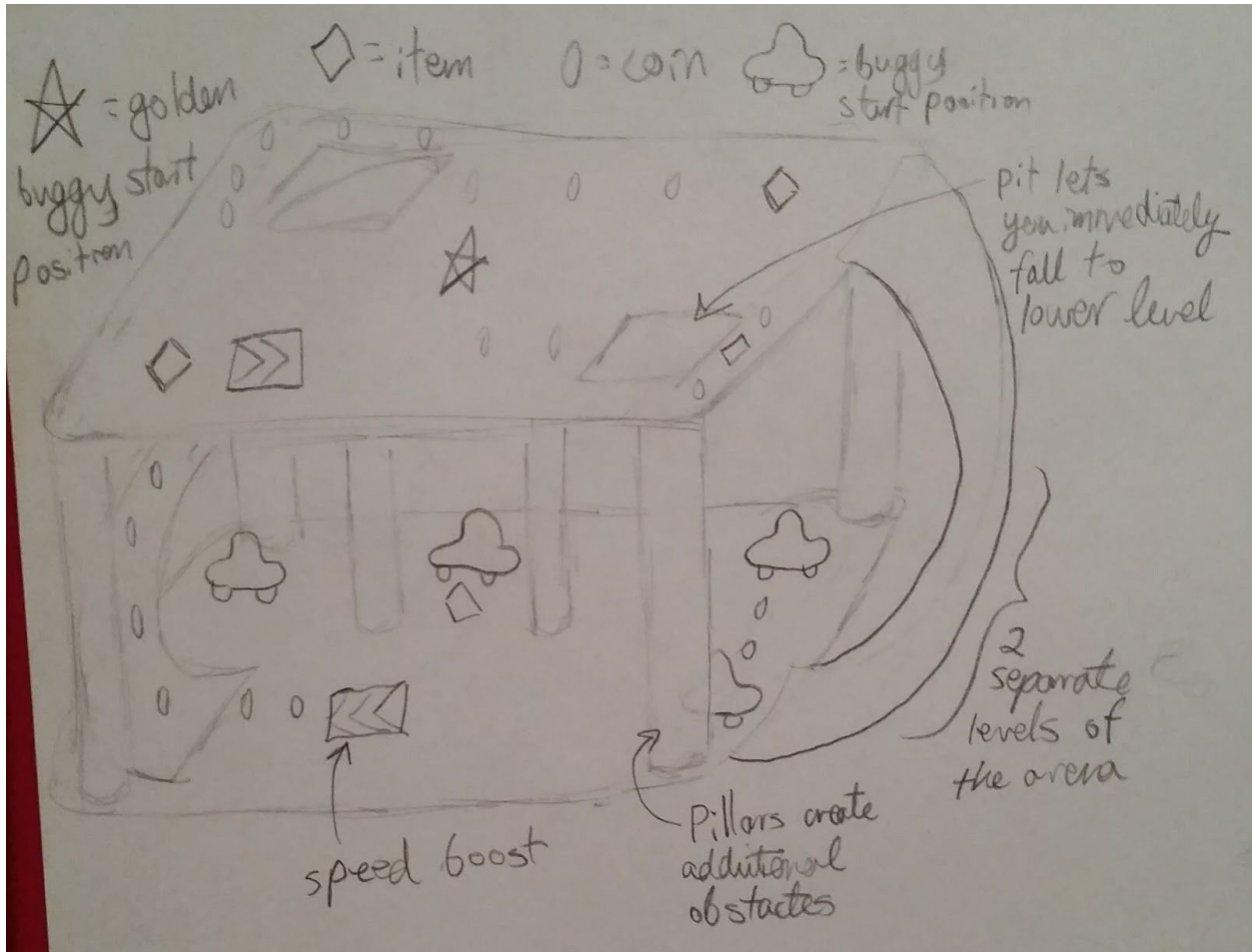
- Golden Buggie only Powerups (Box will be a golden colour)
 - Shrinking ability
 - Decreases the size of the hitbox and increase maneuverability
 - Pulse
 - A short range knock back effect all around Golden Buggie
 - Decoy
 - Creates a short lived copy of the Golden Buggie that is AI controlled to confuse the other players
- Powerups for Both:
 - Bomb
 - A projectile attack that will stun any cart hit
 - If the Golden Buggie is hit, it is slowed, not stunned
 - Bubble
 - A shield that will protect a Buggie from one attack
 - The shield will not protect a Buggie from being hit with another Buggie
 - If used by the Golden Buggie, it will disappear over time
 - Nitro
 - Gives a temporary speed boost

- Weaker boost for the Golden Buggie
 - Mine
 - Places a mine that will stun a player that runs over it
 - Slows the Golden Buggie rather than stunning it
- Powerups for non Golden Buggie(Box will be a different colour other than Gold):
 - Size up
 - Increases the size of the Buggie's hitbox as well as the impact of their hits on other Buggies
 - Rope
 - Launches a rope that will pull the Buggie towards the Golden Buggie
 - Must be used carefully to not be pulled directly into terrain
 - Homing Missile
 - Same as the bomb, but will home in on another Buggie, but not the Golden Buggie
- Cart-specific special Powerups (obtained after collecting three Powerups):
 - Blue
 - Nitro
 - Speed boost lasts longer
 - Higher speed boost
 - increase maneuverability
 - Red
 - Mine
 - Larger explosion
 - Larger trigger radius
 - Longer stun
 - More camouflaged
 - Orange
 - Bubble
 - Shield lasts for two hits instead of the normal one hit with a regular shield
 - Shield prevents other Buggies from crashing into the shielded Buggie
 - Black
 - Bomb
 - Bomb moves faster
 - Bomb stuns longer
 - Bomb explodes

Section 3: Concept Art

3.1 Arena Designs:





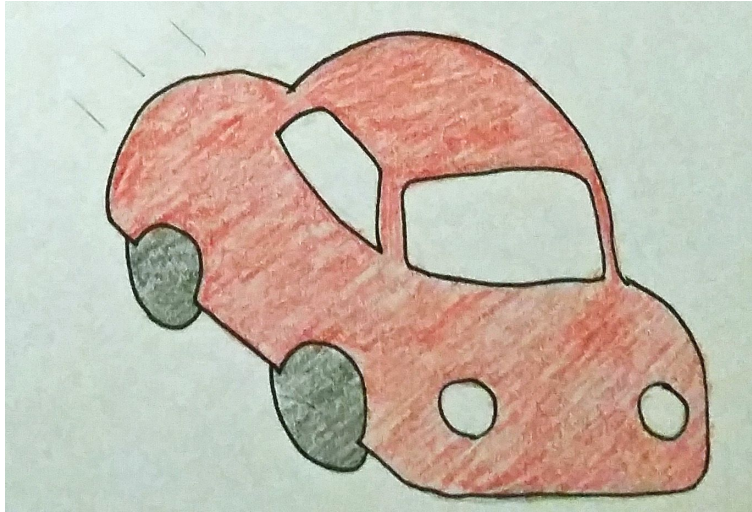
The arenas will have item boxes and coins dispersed throughout them, as well as various obstacles which the player must maneuver around. The arenas will have varying levels of height within them, as opposed to being entirely flat.

3.2 Typical Battle:



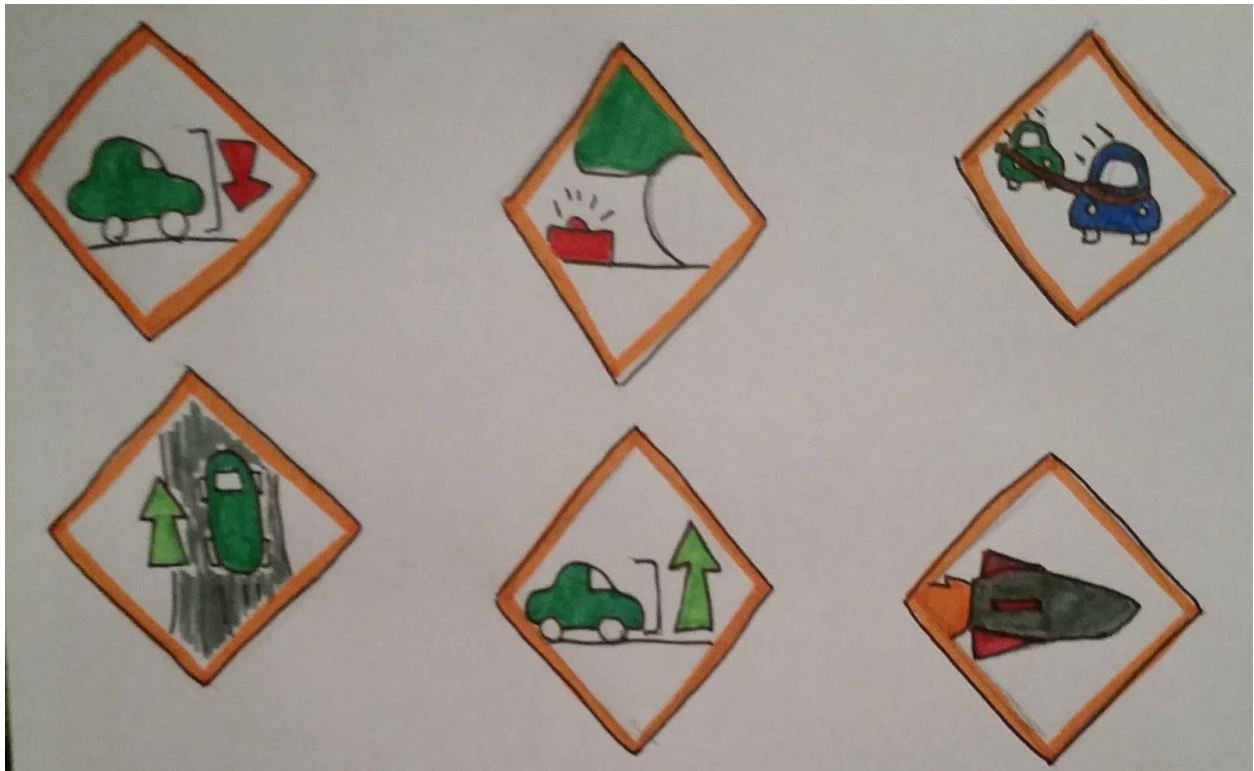
This concept art displays several features of King of Buggies; the Golden Buggie is fleeing from other players while avoiding a projectile weapon. Arena features are showcased; the red Buggie is about to drive over a speed boost, while a jump ramp is shown in the background. Coins and an item box are also present.

3.3 Standard Vehicle:

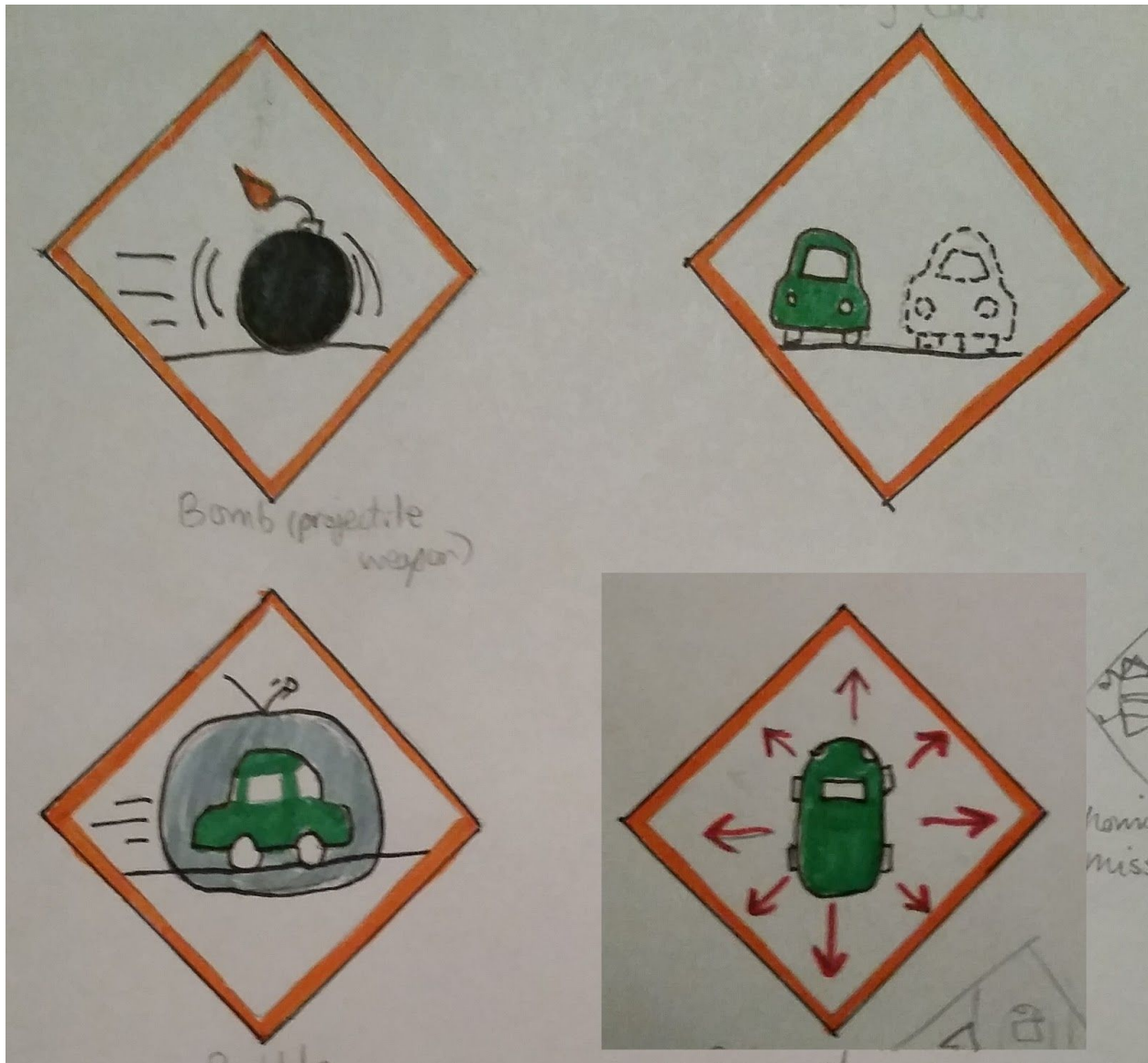


The vehicle design is simple; the cars are meant to resemble punchbuggies and therefore will be quite round and brightly coloured. As described above, the buggy may be red, blue, orange or black (or gold, if the player is the Golden Buggy).

3.4 Power-ups:



Pictured powerups for the shrinking item, mine, rope, nitro, size-up, and missile items.



Pictured powerups for the bomb, decoy car, bubble, and pulse items.

The above concept art pictures the powerups as they will appear in item boxes and within the player's UI. They also help visualise how these items will be used in-game.