

# Fall 2015      Planetary Pest Squad



Team: Orange Kiwi

Game: Planetary Pest Squad

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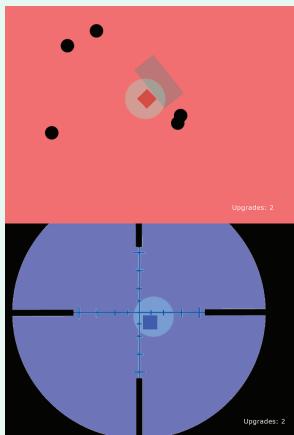
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# 1.0—PLANETARY PEST SQUAD

## EARLY PROTOTYPES

As a newly formed team we felt it was appropriate for us to explore our individual ideas of what kind of game we'd like to make by having each of us who had an idea for a game quickly prototype our ideas to share with the team. From these prototypes we could pick and choose the best parts of each prototype to come up with a cohesive game that everyone had a vested interest in making.



1.1—*Interplanetary Snipers*

### Interplanetary Snipers

This prototype is a top-down strategy game between two players who compete from different planets to out maneuver and snipe their opponent from across space (see *figure 1.1*).

#### Features:

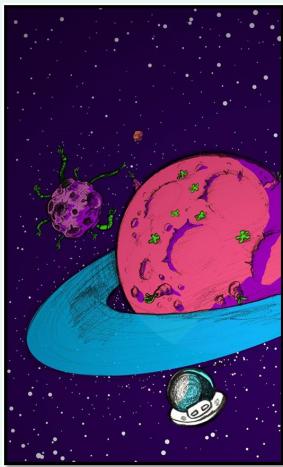
- └ Fast-paced action gameplay
- └ Quick to learn, difficult to master
- └ Unique characters and gameplay styles

### Super Space Scavengers

This prototype was a top-down rogue-like where players work together to explore abandoned space ship wrecks, defeat enemies, and loot as much as possible from the space ship wreck before time runs out.

#### Features:

- └ Competitive & co-operative
- └ Upgrade system for player progression
- └ Unique interactions within wrecked ships



1.2—Asteroid Alien Annihilators

### Asteroid Alien Annihilators

A third-person competitive game where players exterminate aliens from spherical asteroids (see figure 1.2).

#### Features:

- └ Spherical planetoids!
- └ Randomly generated rooms as planetoids
- └ Multiple movement mechanics

### CHOSEN CONCEPT

After reviewing the prototypes we presented we were happy to see that we all wanted to make similar games. We loved the artistic environment of Asteroid Alien Annihilators and the proposed gameplay of Super Space Scavengers. We decided on a new game with the title: Planetary Pest Squad



### DESIGN PILLARS

Our goal when designing Planetary Pest Squad is to make a fun game, and in order to do this we developed 3 core design pillars that our game is based upon:



### 1—3D Movement Around Spherical Planetoids

We want to provide the player with a true 3D experience in space. To accomplish this the planetoids in our game each have their own local gravity that allows players and other entities to move around on the surface.

### 2—Randomly Generated Levels & Events

To help further the feeling of exploring brand new worlds and also to keep in touch with a standard feature of rogue-likes, we are treating the planetoids like individual dungeon rooms. Planetoids will be designed in chunks and populate the world procedurally to provide a unique experience. System wide events will also provide excitement in the form of meteor showers or raider attacks!

### 3—Competitive Risk & Reward Style Multiplayer

Players compete to collect the most loot in an ever increasingly dangerous environment. We want the players to weigh the risk of loot versus potentially dying and losing everything they've gotten so far. You can always buy back into the game as a clone of your previous self, but your items might get picked up by another player.

### AUDIENCE & RATING

While Planetary Pest Squad does have shooting we refrane from shooting bullets or having blood and gore. Instead, we try to keep the game playful by using retro sci-fi style energy bolts to zap bugs or robot raiders.



Since our focus is on creating a couch co-op style game, we are trying to appeal to gamers and non-gamers alike with a bright and fun atmosphere and simple gameplay. We feel like for this reason our game would get us an E10+ rating.



## 2.0—GAMEPLAY

### INFLUENCES

In the process of forming our team we've made sure to hang out, play video games, and get to know one other so we can be a stronger team. During this process we played games that highly influence Planetary Pest Squad:



2.1—Super Mario Galaxy

#### **Super Mario Galaxy**

As the first design pillar for our game, the idea of having a third-person game that uses spherical planetoids is not new. Super Mario Galaxy is a huge influence and a lot of what we have tried to implement in our own character and camera controller can be seen as similar to that which is on show in Super Mario Galaxy (see figure 2.1).

##### Similar Features:

- └ Spherical planetoids
- └ Local gravity on planetoids
- └ Smooth player controller and camera



2.2—Geometry Wars 3

#### **Geometry Wars 3**

Like Super Mario Galaxy, Geometry Wars 3 also uses spherical planetoids. However, the Geometry Wars 3 focuses mostly on 2D shooting around spherical surfaces. We loved this idea and wanted our combat to be constrained in a similar way which makes our blaster bolts look awesome as they fly around the planet (see figure 2.2).

##### Similar Features:

- └ Spherical planetoids
- └ Planet-constrained bullets
- └ Unique and amazing combat



## MECHANICS

We're striving to keep gameplay mechanics simple so that our game is easy to pick up and play, but difficult to completely master. Our mechanics currently in the game are as follows:

### **Shooting:**

Currently the bulk of the player's interaction with our game involves blasting pests by shooting energy bolts at them. Inspired by Geometry Wars 3, we have the shooting in our game to follow the curvature of the planet which can lead to shots circling all the way around infinitely if it does not hit anything. Our playtesting has shown that shooting in our game is fun and frantic, especially when enemy raiders show up and start shooting back at the player (see figure 2.3).



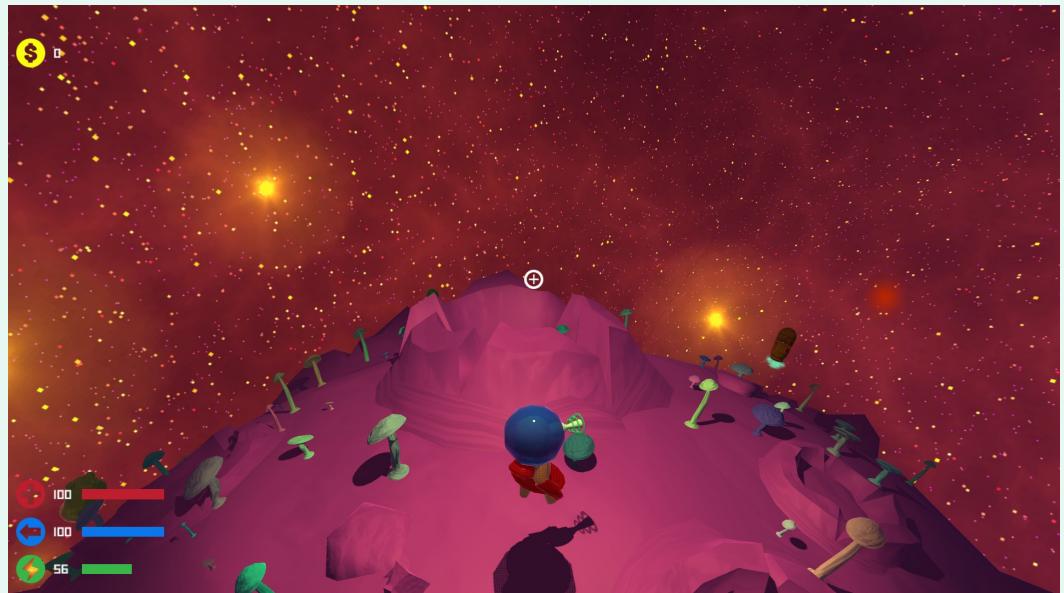
2.3 The player is shooting a green energy bolt at a pest in Planetary Pest Squad

### **Movement & Jumping:**

A lot of attention has been put into Planetary Pest Squad to get the player movement and camera controller to feel right for the player.



Early on the biggest complaint we had in playtesting came from the controls just not feeling right. We've really taken to trying to achieve controls that feel as smooth as those found in Super Mario Galaxy. We've also tried to give jumping a slightly floaty feel to mimic the low-gravity of outer space (see *figure 2.4*).



2.4 The player jumping around on a small planetoid with low gravity in Planetary Pest Squad

### Pickups:

To aid with variety and provide the player a sense of progression we plan on utilizing pickups in Planetary Pest Squad. Pickups can range from loot to buy upgrades, extra health, ammo, or even weapon effects like enemy knockback or poison. Pickups give the player a reason to search a planet and also reward a player for eliminating pests. (see *figure on the next page* 2.5).



2.5 The player is about to pick up a “loot pickup” that increases the player’s money earned during a mission

#### Mechanic Features:

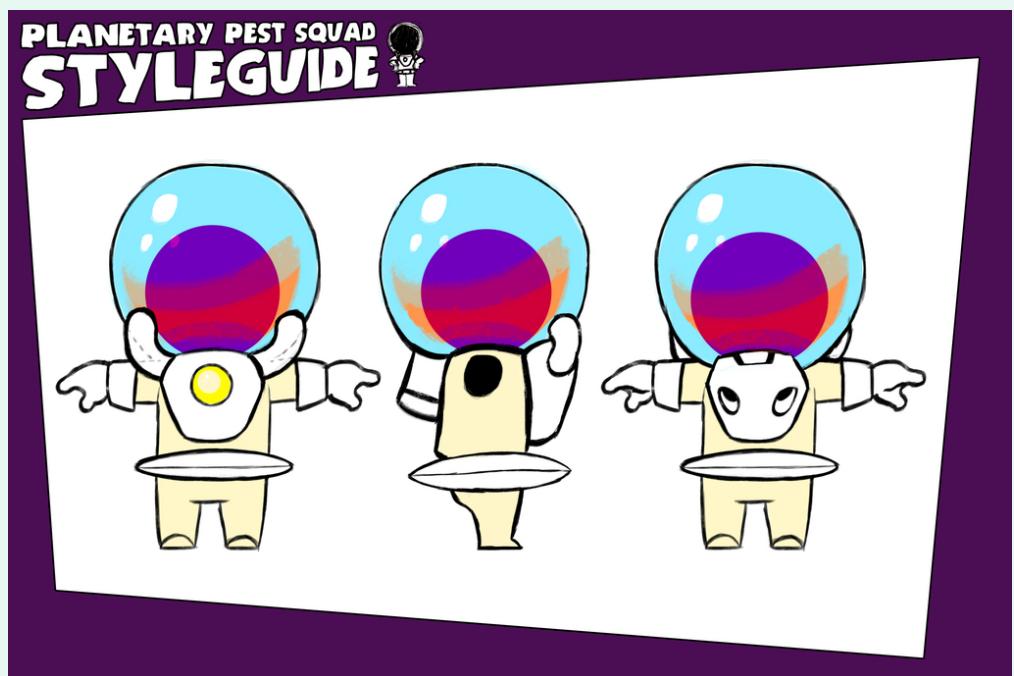
- └ Simple mechanics for easy to pick up and play
- └ Shooting is fun and the main interaction
- └ Pickups add variety and secondary goals



## 3.0—OVERVIEWS

### MAIN CHARACTER

Each player in our game plays as a member of the Planetary Pest Squad, a galactic space service that acts like an exterminator for ridding planets of unwanted pests. While we currently are focusing on nailing the look and feel of implementing of a single player's experience in our game, our goal is to make this game a couch co-op and have up to 4 players each playing as a different color based off of the main character (see *figure 3.1*):



3.1 Planetary Pest Squad player model concept

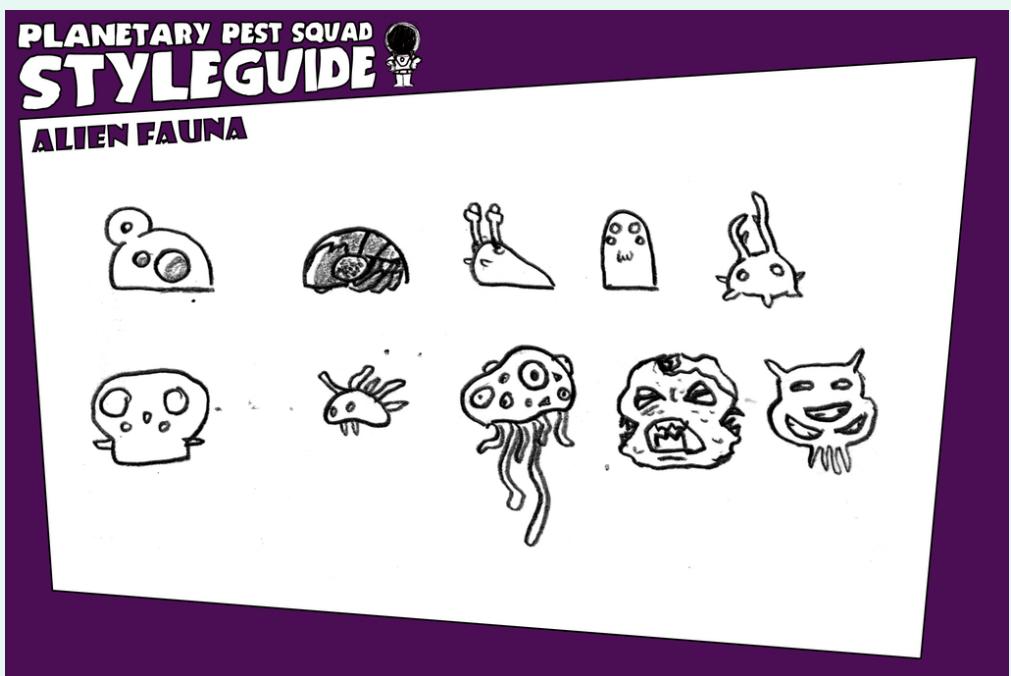
#### Character Features:

- └ Low-gravity movement/jumping
- └ Shoot pests and collect loot
- └ Can collect pickups to alter shooting abilities



## ENEMIES

Planetary Pest Squad is meant to have a bright and fun feeling, so our enemies in the game are not meant to detract too much from the fun theme we are trying to establish. For this reason, enemies in our game tend to be more odd than scary with maybe just a slight cuteness to their ugliness. We also plan on using the color of the enemies to help the player immediately recognize if the enemy is a native species of a planet, not meant to be exterminated, or an invasive pest, meant to be exterminated (see *figure 3.2*).



3.2 Early concepts for enemies in Planetary Pest Squad

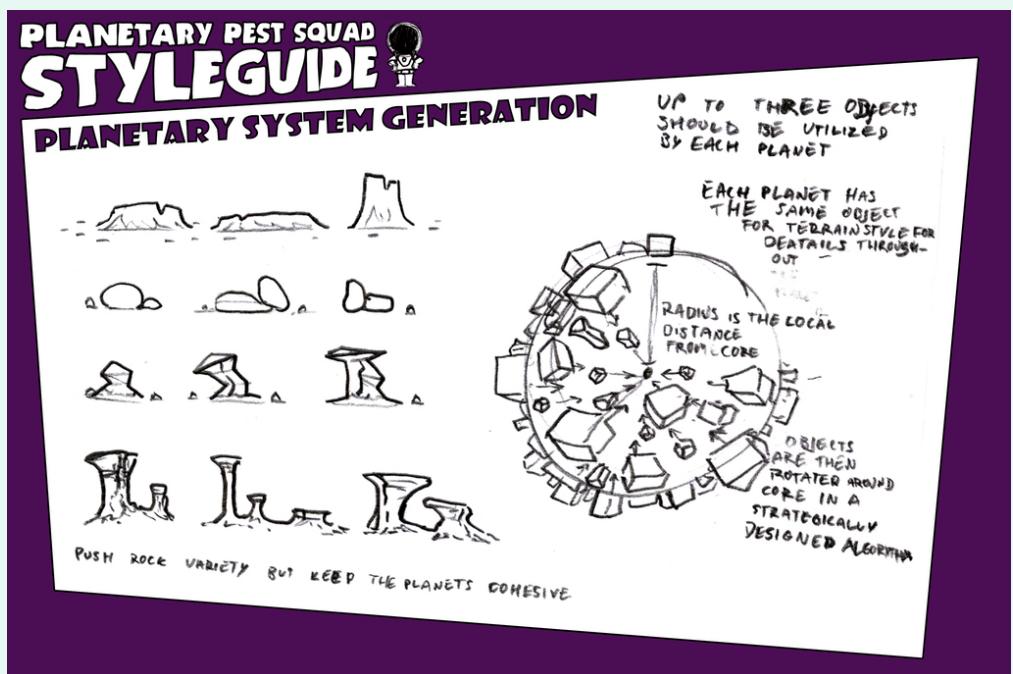
### Enemy Features:

- └ Single unique movement/attack mechanic
- └ Drops loot upon extermination
- └ Color distinguishes pest from native planet

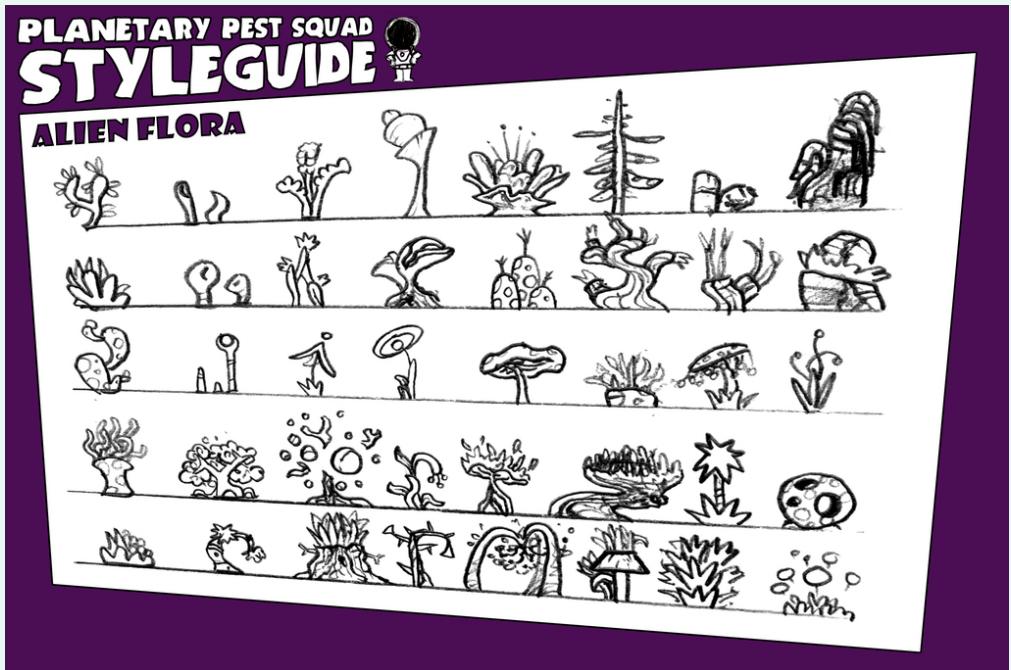


## ENVIRONMENT

Planetary Pest Squad environments are planetoids that range in size, color, and features. We plan on procedurally generating planetoids based on pre-designed chunks. Each environment should only utilize a few terrain features to feel unique and also not overwhelm the players (see figure 3.3). Each planetoid should also have unique alien flora to separate it from other planets that have been generated for a level (see figure 3.4).



3.3 Early concepts for planetary system generation for Planetary Pest Squad



3.4 Early concepts for alien flora for Planetary Pest Squad

#### Environment Features:

- └ 2 – 3 terrain features per planet
- └ Unique alien flora to add variety
- └ Color distinguishes each planet in a level



## NARRATIVE

Planetary Pest Squad is not meant to be a narrative heavy game, however that does not mean we should not have any narrative at all. We plan on using a basic narrative to set the players up for each level in the form of a mission brief. Before each level the players receive a mission brief that explains what they are to accomplish in that level as well as the general theme of the level. Sometimes levels are simple and require the player to eliminate all pests, while other levels might have the players protecting the native species from a very aggressive pest, we even plan on having boss pests that the players need to work together to take down.

The end of each level provides the players with a level recap so that players can see how well each other did and also the opportunity to purchase upgrades. Players then progress to the next level where they can choose which mission to take on next so that they can choose their own narrative adventure in a way.

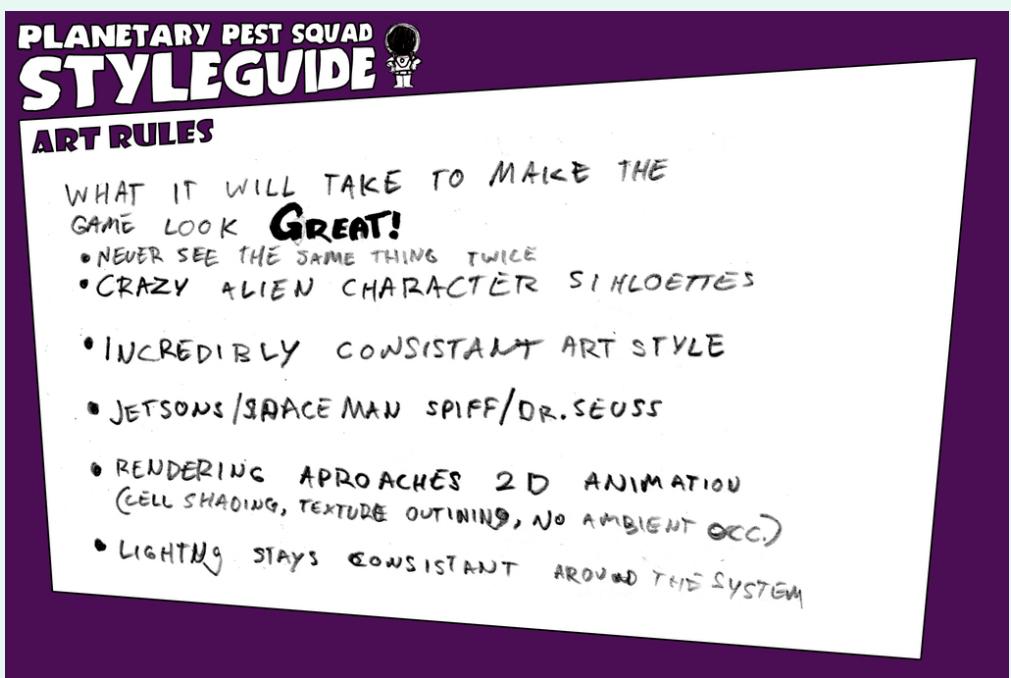
### Narrative Features:

- └ Light narrative with enough information to start the game and get going
- └ Simple level themes with a singular focus



## ART

Planetary Pest Squad's art style is a mix of retro science fiction and a simple polygonal style. We believe by drawing on the nostalgia of cartoons like the Jetsons, comics like Calvin & Hobbes' Space Man Spiff, and the art style of Dr. Seuss we can create a fun and unique atmosphere for a visually exciting adventure set in outer space. The low polygonal style should help us achieve more artwork and also keep our game from being too visually overwhelming, while also aiding us in creating a variety of procedurally generated environments. (see figure 3.5).



3.5 Art rules that we've set for Planetary Pest Squad

### Art Features:

- └ Consistent low poly style 3D art
- └ Retro science fiction theme
- └ Bright colors and a variety of geometric shapes



## AUDIO

There are multiple goals that we want to fulfill for the audio in Planetary Pest Squad. We want the game to convey the feeling of being in outer space where anything could happen at any given time so we added a sort of spooky ambience track. On top of the ambience track we also have implemented music that changes dynamically with how much action/chaos is happening near the player. The music is very upbeat because we want the game to feel action packed and competitive. Our sound effects are reminiscent of the arcade era of games to strengthen our retro-futuristic theme.

### Audio Features:

- └ Dynamically changing music based on how much action/chaos is going on
- └ Simple, arcade style sound effects