



Zynga - Design Spec
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Power Ups

This feature outlines the power up system. The different types of power ups, functionality, how the user interacts with power ups and economy data.

- *Power Up Functionality*
- *Power Up UX (User Experience)*
- *Economy Pricing Structure*

{ Dev Team }

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Feature Details

Feature Breakdown is placed in this section

1. Power Up Functionality

- a. +6 Extra Bubbles
 - i. When activated the user gets six extra bubbles added to their hopper for each level.
- b. 2 Extra Friend Slots (Bubbles From Friends)
 - i. When activated adds two friends from Bubble From Friends for use in level. Bringing the max number of friends to 4. (see BUBBLE MOBILE - Bubbles from friends spec if additional details)
- c. Bee Block
 - i. Prevents the user from getting stung during a bee attack three times per level.
 - ii. Images of honey are placed over the far right basket. The honey image contains three layers. After each attack a layer is removed/replaced to indicate there is less honey for subsequent attacks.
 - iii. When attacked the bees fly over to the honey instead of attacking the monkey.
- d. Fire Shots
 - i. At the user's discretion they can add a fire bubble to their hopper.
 - ii. The fire bubble replaces the current bubble in the cannon.
 - iii. The fire bubble is identical to the fire bubble the user earns when they are on fire.
- e. Poacher Stop
 - i. Closes all the poacher traps for 5 shots.
 - ii. While closed the poacher traps will not end the level if struck by a user's bubble.
 - iii. After the 5 shots the poacher traps become active again.
- f. Spawner Freeze
 - i. When activated three hummingbirds fly into the rack and freeze the closest three spawners.
 - ii. While frozen the spawners will not spit bubbles into the rack.
 - iii. After 5 shots the spawners become active again.
- g. Starting Birds
 - i. The user will start with 1 of each of the three hummingbirds at the start of a level (yellow, 2x, splitter).
 - ii. The hummingbirds maintain all their default logic.
- h. Undo Shot
 - i. Gives the user the ability to "undo" their last shot.
 - ii. Undoing a shot...
 - Returns the bubble into the hopper.
 - Adds the bubbles back into the rack if popped.
 - Returns any dropped fruit back into the rack.



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Reset the user's points to before the shot.
Return lost Hummingbirds (if applicable).

- i. Extended Aim
 - i. Triple the length of the dotted line extending from the bubble shooter.
 - ii. Once activated this power up cannot be disabled.
 - iii. The extended pointer adheres to the normal dotted line conventions (does not draw through bubble, etc...)
- j. Scroll Peek
 - i. Allows the user to scroll to the top of the screen three times per level.
 - ii. Once activated slowly scroll the rack up to the top row, once reaching the top row reverse the scrolling returning the rack to its original position..
- k. Vine Wither
 - i. When activated three hummingbirds fly into the rack and wither the closest three vines.
 - ii. The vine will continue to function as normal after the wither.

2. Power Up User Experience

- Automatically Activated Power Ups
 - i. The following power ups are activated automatically at the start of the level. They require no user interaction.
 - Add Friends
 - Bee Block
 - Extended Aim
 - +6 Extra Bubbles
 - Starting Birds
- User Activated Power Ups
 - i. These power ups the user must activate during a level
 - Fire Shot
 - Poacher Stop
 - Spawner Freeze
 - Undo Shot
 - Scroll Peek
 - Vine Wither

Opening the Power Up Shelf	Activating a Power Up
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<ul style="list-style-type: none">Pressing the power up icon opens the power up shelf. (lightning bolt on the right)Animate the shelf opening up (sliding in from the righthand side of the screen).	<ol style="list-style-type: none"><ul style="list-style-type: none">Clicking on the question mark opens the info dialog that explains which each power up does. This list populates dynamically depending on which power ups the user purchased for that level.<ul style="list-style-type: none">Display the number of uses remaining<ul style="list-style-type: none">Clicking on the power up once the shelf is open activates the power up and closes the shelf.Display the power up iconPlay a SFX when the user activates a power up.<ul style="list-style-type: none">Pressing the "X" button closes the



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	power up shelf.
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3. Economy Data Structure

- a. Maintain the following economy data structure already outlined game_item.

- i. *Example*

```
{
  "components": [
    {
      "purchasePriority": 800,
      "@type": "PowerUpTemplItemComponent",
      "currency": "coin",
      "cost": [500],
      "quantities": [3],
      "isPurchasable": true
    }
  ],
  "className": "Game.Items.PowerUp"
}
```



Feature Requirements

This section breaks down the work by discipline and all requirements

1.0 Dev Requirements

- 1.1 Port +6 Bubbles functionality
- 1.2 Port 2 Extra Friend Slot functionality
- 1.3 Port Bee Block functionality
- 1.4 Port Fire Shot functionality
- 1.5 Port Poacher Stop functionality
- 1.6 Port Spawner Freeze functionality
- 1.8 Port Starting Birds functionality
- 1.9 Port Undo Shot functionality
- 1.10 Port extended aim functionality
- 1.11 Port Scroll Peek functionality
- 1.12 Port Speed Slot functionality
- 1.13 Port Wine Wither functionality
- 1.14 Verify the following power ups are automatically when the user purchase the power up. Speed Slot, Add Friends, Bee Block, Extended Aim, +6 Bubbles, Starting Birds
- 1.15 Verify the following power ups are activated during a level by the user. Fire Shot, Poacher Stop, Spawner Freeze, Undo Shot, Scroll Peek, Vine Wither.
- 1.16 Verify that pressing the power up icon during a level opens the power up shelf.
- 1.17 Verify that pressing a power up in the power up shelf activates the power up and closes the shelf.
- 1.18 Verify the economy data remains intact from the game_items module.

2.0 Art Requirements

- 2.1 Secure the power up icon for +6 Extra Bubbles
- 2.2 Secure the power up icon for 2 Extra Friend Slots
- 2.3 Secure the power up icon for Speed Slot
- 2.4 Secure the power up icon for Bee Block
- 2.5 Secure the power up icon for Extended Aim
- 2.6 Secure the power up icon for Starting Birds
- 2.7 Secure the power up icon for Fire Shots
- 2.8 Secure the power up icon for Poacher Stop
- 2.9 Secure the power up icon for Spawner Freeze
- 2.10 Secure the power up icon for Undo Shot
- 2.11 Secure the power up icon for Scroll Peek



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- 2.12 Secure the power up icon for Vine Wither
- 2.13 Secure the honey overlay for the baskets

3.0 SFX Requirements

- 3.1 Secure the trap close SFX (for poacher stop)
- 3.2 Secure the spawner freeze/thaw SFX
- 3.3 Secure the undo SFX

4.0 PM Requirements

- N/A

5.0 Design Requirements

- 5.1 Enter the unlock condition in the event module for each power up.

6.0 Community & CS Requirements

- N/A

7.0 QA Requirements

- N/A



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Stats Tracking

[Link to taxonomy doc - Which may need to be updated when feature is developed](#)

New Stats > Stat Name

Counter	Kingdom	Phylum	Class	Family	Genus	Notes



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Question/ Comments
