

III. Dawn GDD Game Systems

Player Capabilities

Ability	Controller Input	Mouse and Keyboard Input	Keyboard Only Input	Explanation
Movement	Left Control Stick	WASD Keys	WASD Keys	The character can move along the ground freely.
	Directional Pad			
Camera	Right Control Stick	Mouse Movement	Arrow Keys	The player can move the camera around freely. The camera pivots about the character, and zooms into the character when pressed against a wall.
Jump	A Button	Space Key	Space Key	The player can jump across gaps, and has air control as they do so. Ash's jump height changes depending on how long the player holds down the jump button, from a minimum to a maximum (as listed in VII. Dawn GDD Game Metrics)
	B Button			
Double Jump	A Button (while in midair)	Space Key (while in midair)	Space Key (while in midair)	The player can jump a second time while in mid-air. The double jump is also modal, with a minimum and a maximum. If a player walks off a ledge and jumps, this jump qualifies as a double jump.
	B Button (while in midair)			
Wind Interact	X Button	Left Click	Right Control	Ash shoots out a shockwave of wind and energy in front of her. Activates certain gameplay elements, including growing the vines and activating touchstones.
	Y Button	Right Click		
Zoom In Camera	Right Bumper	Mouse Wheel Scroll Up	Page Up	The camera behind the player character zooms toward Ash.
	Right Trigger			
Zoom Out Camera	Left Bumper	Mouse Wheel Scroll Down	Page Down	The camera behind the player character zooms away from Ash.
	Left Trigger			

Note that these are default bindings. The player can modify all bindings in the options menu. See [Menu System](#).

Sunlight System (Ley Lines)

Overview

The Sunlight (or Ley Line) is a vivid ray of light that first awakens Ash at the beginning of the game. The light travels through the environment until it reaches a Ring. If inactive, these rings block the Sunlight from continuing forward. If active, they reflect the light at an angle and allow it to continue. As part of each level, the player uses Ash's interact ability to activate the touchstones. Once activated, the touchstones activate the inactive rings in the play area, which in turn shoot the sunlight forward and open the player's path. The Sunlight is a "companion" of sorts that the player carries through the game.

Sunlight Visual

The Sunlight is a diffuse beam of light that originally comes down from the sky at the beginning of the game. It is moderately concentrated, but diffuse. It is dominantly yellow-orange in color, reminiscent of a sunrise.

It is large enough to complement the rings (see below).

Sunlight Usage

- Serve as a sort of through line to connect areas.
 - That said, the player does not always need to see the sunlight. As long as the sunlight can reasonably connect from one area to the next, it may disappear from view as needed for level flow.



Ashton Maltie IV

Rings

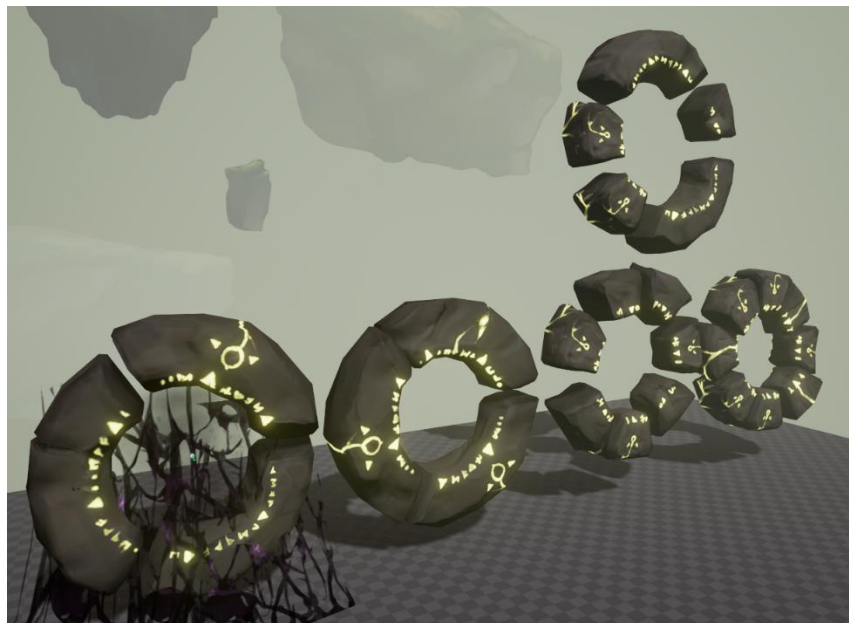
Inactive rings block the sunlight from continuing forward, while active rings redirect the sunlight forward.

Each ring is made up of multiple stone pieces of various sizes and a single pyramid-shaped crystal (similar to the crystal atop the Touchstones below, but larger). When inactive, these pieces float around a given area—close enough to tell that they are related, but far enough that they are clearly separated. The crystal floats near the final point where the ring gets assembled and blocks any incoming sunlight. Inactive ring pieces have markings that are faded and barely visible.

When activated, the ring pieces come together, the crystal shines and refocuses to aim at the next ring in sequence, then "shoots" the sunlight forward to dissipate the miasma. The yellow markings on the ring pieces also illuminate.

Notes:

- Once activated, rings cannot become inactive.
- Rings do not have to come together completely; there can be gaps (see illustration below).
- Ring pieces have collision, and designers may place pieces as platforming elements (though the ring piece will fly away when activated)
- The process of activating the rings happens sequentially, not simultaneously, so as to create a wow moment:
 1. Activate Touchstone
 2. Ring pieces glow with markings
 3. Ring pieces come together
 4. Crystal lights up and rotates as needed to find target
 5. Crystal "shoots" sunlight forward (we should see it travel; not be instant)



Active rings come together and feature highlights similar to the Sunlight. Not pictured: the crystal in the middle of the rings.

Aaron Chang

Interact System

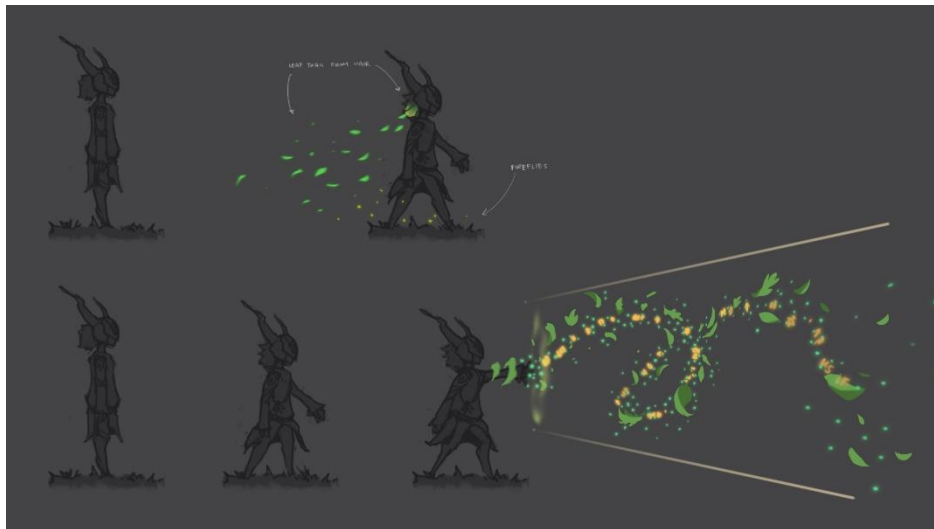
Overview

The player uses Ash's wind interact ability as a tool to activate objects and grow plant life in the world, opening paths through areas. Visually, it appears as Ash creating a gust of wind that extends out in front of her in a cone shape, accompanied by leaves and streamer-like wind lines, similar to those on the character.

The player uses the wind interact ability by pressing the corresponding control, and may use the ability regardless of whether or not a potential target is in range. See [Targeting](#) section below.

The interact cannot pass through corners or walls. If the gust of wind hits a wall or reaches its maximum range, it dissipates.

While there is no limit to how many times Ash may use the interact ability, Ash may not use it while in the air, and there is a brief cooldown before the player can use it again.



Li Lu

Wind Interact Usage

- Activate Touchstones, which in turn activate rings and direct the Sunlight through levels
- Cause Vines to grow and create additional platforming paths

Stamina & Range

There is no Stamina system. The player can use the wind interact ability as many times as desired.

The interact is limited in its range, defined in [VII. Dawn GDD Game Metrics](#). If the gust of wind hits a wall or reaches its maximum range, it dissipates. Note that Ash can target objects above and below her.

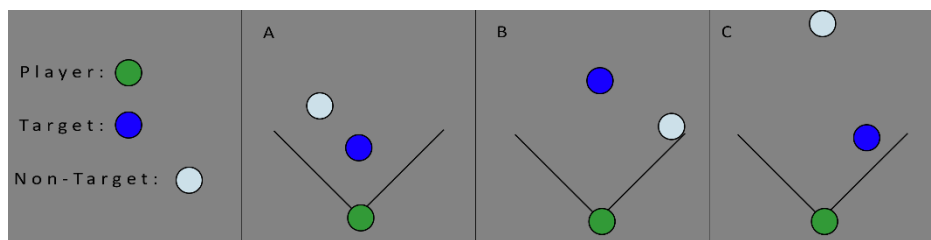
Targeting

All gameplay elements that Ash can directly interact with feature a small group of firefly-like particles that fly around the object. When Ash is within range, these fireflies become excited and fly around the object faster. Additionally, a targeted object features a yellow corona/highlight around it.

When a possible interactable element is on the middle 2/3 of the screen, the player automatically targets it. When targeted, the yellow corona appears, indicating the target

If an object is out of range, then it is disqualified as a target. Objects above and below the player are valid targets, provided they are within range and the player has line of sight.

If there is more than one object in the middle 2/3 of the screen, the system picks its target based on a combination of how close the object is to Ash and how close to the center of the screen the object is. Being closer to the center of the screen is more heavily valued than being close, within reason. For example:



A: The target is both closer to the player, and closer to the center of the view field.

B: The target is further away from the player, but more in the center of the view field.

C: The non-target is far enough away from the player that the side target becomes more "valuable."

If Valid Target

If the player uses the interact ability when there is a valid target, then Ash turns to face the target and uses the interact ability, and cannot move while using it.

If No Valid Target

If the player does not have a valid target in range when they use the interact ability, Ash uses the ability forward from her current facing, and cannot move while using it.

Target Visuals

All gameplay elements that Ash can directly interact with feature a small group of firefly-like particles that fly around the object. When Ash is within range, these fireflies become excited and fly around the object faster. Additionally, a targeted object features a yellow corona/highlight around it.



Vine with targeting visuals

Gameplay Elements

[VII. Dawn GDD Game Metrics](#) contains all current standard metrics relating to these gameplay elements.

Rings, Sunlight, Touchstones

Ash activates Touchstones to activate Rings that direct the Sunlight.

See [Sunlight System](#) for full details on all four elements.

Fireflies

There are two different fireflies in Dawn, each of which serves its own purpose.

Targeting Fireflies

Targeting fireflies are tied with the [Targeting System](#). They should be placed on all objects that Ash can interact with using the Interact ability.

When idle, the fireflies fly slowly around the object. When Ash is within range of using her ability, these fireflies become excited and fly around the object faster.

Pathing Fireflies

These fireflies fly along a spline and guide the player through the level. They fly periodically from source to destination, and then fly off in various directions when they reach the end.

Vines

The player encounters sprouts along the path that grow when Ash's wind interact ability hits them. Once they receive an initial hit, they grow to their full size, and additional hits do not grant additional effect.

While idle, they pulse faintly with a green emissive material, and are surrounded by targeting fireflies. While growing, the emissive gets more intense, but the pulsing period does not increase. Once fully grown, the emissive material fades away to a normal vine material.

Vines may grow in any direction—vertically or horizontally—along a spline defined by designers.

Leaves

Leaves on vines are normal leaves that function as stable platforms. They appear as normal green leaves.

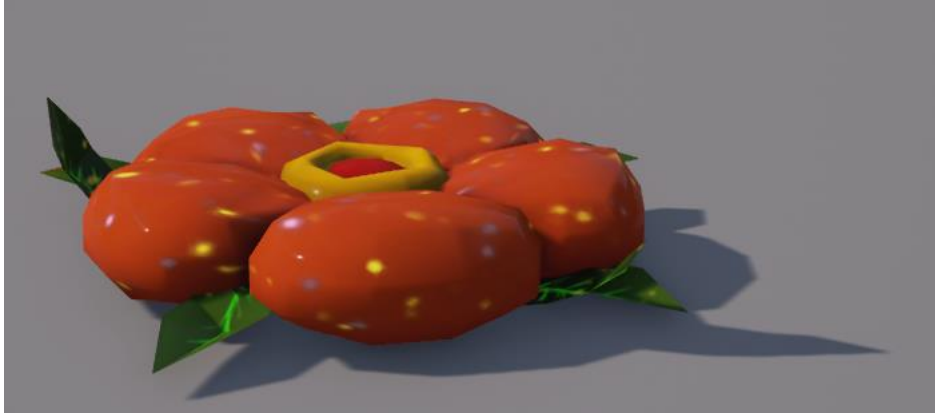


Aaron Chang

Bouncing Flowers

Bouncing flowers appear similar to the vines, but they grow into a stationary flower that acts as a jump pad. When Ash jumps on them, they shoot Ash upward a **standardized amount**.

When Ash jumps on them, they emit a puff of spores and visually jiggle to provide some visual feedback.



Ashton Maltie IV

Collectable Flowers

Throughout the game, the player encounters flowers in the world that respond to the interact ability.

These flowers begin closed and aimed down, with a targeting firefly around them. When the player hits the flower with the interact ability, the flower shifts upward, blooms, and adds emissive to the material. Additionally, the bloomed flowers feature a small emissive "firefly" particle emitting from the center.

Placement

The flowers should be placed in interesting locations, rarely (though sometimes) on the critical path. They can and should be used to encourage the player to explore different side areas around the play space.

There is no specific quota on the number of flowers the player should encounter, though since we're using them as reward mechanisms, LDs should not be stingy.

Endgame

At the end of the game, after the credits, the player receives a count of the number of flowers they activated out of the total.



Prassy Ravichandran

Platforms

Players encounter normal platforms made of the normal environmental rock as an element incorporated into other puzzle solving or navigation mechanics, and as a method for transitioning from place to place. Such involvement may include moving and jumping to cross from platform to platform in order to navigate from one side of an area to another.

The platforming elements may provide some challenge, but keep in mind that the **reflex/twitch gameplay is not a major component of *Dawn***. As such, the difficulty curve needs to be relatively gentle. Think in terms of the majority of challenge being cerebral, not reflexive.

Notes:

- See platform guidelines in [VII. Dawn GDD Game Metrics](#).

Player Health, Checkpoints, and Respawn

Health System

The player does not have a health system, and there is no way for Ash to be in danger other than by falling out of a level while engaging in [platforming](#).

Checkpoints

Designers place autosave checkpoints at logical places along a level's route. Generally, these checkpoints should be placed right before challenges and shortly after challenges, so that player down-time is minimal.

The currently active checkpoint is the latest one visited; furthest along in the level.

Recovery (Lakitu)

When Ash falls out of the level, the power of the wind pushes her back to the last safe location that she visited, quickly and fluidly. "Safe location" is defined as solid ground that is not connected to a vine or any other active gameplay element.

The camera must reorient *forward* in the level when the player recovers.

Designers should not exclusively rely on the recovery mechanic. At least half of the platforming areas that the player uses should feature geometry that forces the player to backtrack and retry rather than relying on the recovery mechanic.

Camera and User Interface

Camera Rules/Features

- The camera is dynamic, focusing on the player, and naturally adjusting its position based on 1) current player velocity and 2) the presence of any points of interest. When points of interest are present, the camera "prefers" to keep the point of interest in the frame.
 - The player has override power from the camera. If the player removes a point of interest from their field of view, then the camera does not try to add the point of interest back in unless the player stops moving. After 1.5 seconds of waiting, the camera begins to pan to include the point of interest once again.
- The camera does not cut, it only pans.
- The camera has smooth acceleration and deceleration

User Interface Elements

Tutorial

When the player is new to the game or learning new puzzle elements, they are presented with additional tutorial guidance in the UI.

Button Prompts tell the player to hit certain buttons in order to teach a skill. These prompts appear just above the center of the UI, and persist on the screen until the player successfully completes the action.

1.
 1. These prompts automatically switch to match the current input mode that the player is using. Eg- if the previous button pressed was on a keyboard, they will see keyboard prompts. If the previous button pressed was on a controller, they will see controller prompts.
 2. At the moment, the HUD cues only use default bindings. I'd like to explore adding adaptive prompts to match user-specified keybinds, if time permits.