Controls and Inputs for Heracles 2D Platformer Prototype

Input List

1. Arrow Keys $(\leftarrow \rightarrow \uparrow)$

- **Purpose**: Movement
 - $\circ \leftarrow$ (Left Arrow): Move Heracles to the left.
 - $\circ \rightarrow$ (Right Arrow): Move Heracles to the right.
 - \circ \uparrow (Up Arrow): Jump.

• Why Chosen:

- Arrow keys are intuitive for movement in 2D platformers and are standard for many players.
- The existing Unity template supports arrow keys, making implementation straightforward.

• Alternatives Considered:

- o WASD Keys:
 - Pros: Popular for movement in games, especially among PC players.
 - Cons: Might conflict with the action inputs assigned to these keys.

o Controller Joystick:

- Pros: Offers analog movement, providing finer control.
- Cons: Requires additional implementation and hardware.

2. Spacebar

- Purpose: Attack
 - o Heracles swings his club or uses a primary attack.

• Why Chosen:

- The spacebar is easily accessible and provides a large target for critical actions.
- It's commonly used for primary attacks in many games, aligning with player expectations.

• Alternatives Considered:

- Left Mouse Click:
 - Pros: Could provide a tactile click for attack actions.
 - Cons: Less intuitive for a platformer, where keyboard controls are standard.

o Shift Key:

 Pros: Easy to reach, but typically used for auxiliary actions like sprinting.

3. Left Ctrl

• Purpose: Dash

 Heracles performs a quick dash in the direction he's facing to evade enemies or cross gaps.

• Why Chosen:

- Left Ctrl is conveniently located near movement keys and does not interfere with other inputs.
- Dash is often used for reactive or defensive actions, and this key is easy to press without disrupting gameplay flow.

• Alternatives Considered:

Shift Key:

 Pros: Could work for dash but might conflict with running mechanics in the future.

o E Key:

Pros: Near WASD, but less natural for quick-reactive movements.

4. E Key

• **Purpose**: Interact

 Heracles interacts with objects, such as pulling levers, opening treasure chests, or reading inscriptions.

• Why Chosen:

 The E key is widely used for interaction in games and is close to movement keys for quick access.

• Alternatives Considered:

o Enter Key:

 Pros: Works well for interaction but is less ergonomic for quick gameplay flow.

o R Key:

 Pros: Another close key, but often reserved for actions like reloading in other game genres.

5. Esc Key

- **Purpose**: Pause Menu
 - Opens the pause menu, allowing the player to adjust settings, resume the game, or quit.
- Why Chosen:
 - The Esc key is universally recognized as the standard for opening menus.
- Alternatives Considered:
 - o P Key:
 - Pros: Could work for "Pause," but Esc is more familiar to players.

Summary

The controls listed above provide an intuitive and efficient system for a 2D platformer. Each input is selected with player comfort, standard conventions, and the prototype's functionality in mind. With this configuration, Heracles can traverse levels, engage in combat, and interact with the environment smoothly.