**Controls:**

* WSAD to move.
* Horizontal mouse movement for rotation.
* Shift to accelerate.
* C to default run or walk
* Space to jump

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**Mechanics:**

* Speed variable to **run** and **walk** movement is acceleration based starts slow and piles up speed.
* Jump is based on physic calculation set **jump height** and **time** for necessary calculations. Longer the jump button is pressed longer is the jump, jump is based on velocity how far player will jump.
* Custom gravity for character which is lesser while moving up and faster while coming down can change based on **multipliers**. Lesser is multiplier lesser is the gravity.
* **Sphere cast** and **Ray cast** are done for slope and ground detection can change the position and lengths for both click on character to see the casts in scene gizmos are draw for reference.
* **Forward probe** is also ray cast to adjust the velocity of character based on ray cast the is don slightly forward to character to adjust velocity so character does not ramp up on slope.

**Controller Summary:**

Controller comes with slope movement and Mario jump mechanics using custom character gravity and has forward probe to adjust velocity preventing ramp ups from edges implemented using finite state machine easily readable and isolated code at cost of intertwined network in classes.

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**How To Play:**

* First platform is doors out of three one door can be slammed opened refer image on right.
* Rest platforms are just simple platforming.
* Reach end to win the game.
* Game will reload scene once reached end.