Character Actions and Preset Configuration Setup

> [!IMPORTANT]
> There is a `.gif` for each action, please wait if they have not loaded.

This section presents all currently implemented character movement capabilities. The tables contain the names and descriptions of parameters present in `PlayerControllerStats`.

General

Configuration of mechanics against the wall

Parameter name	Description
ResetNumberJumpOnWall	Reset jump count when touching wall
ResetNumberDashOnWall	Reset dash count when touching wall
CanJumpInTheAirTowardsTheWall	Allow jumping in air towards wall direction

Detection Parameters

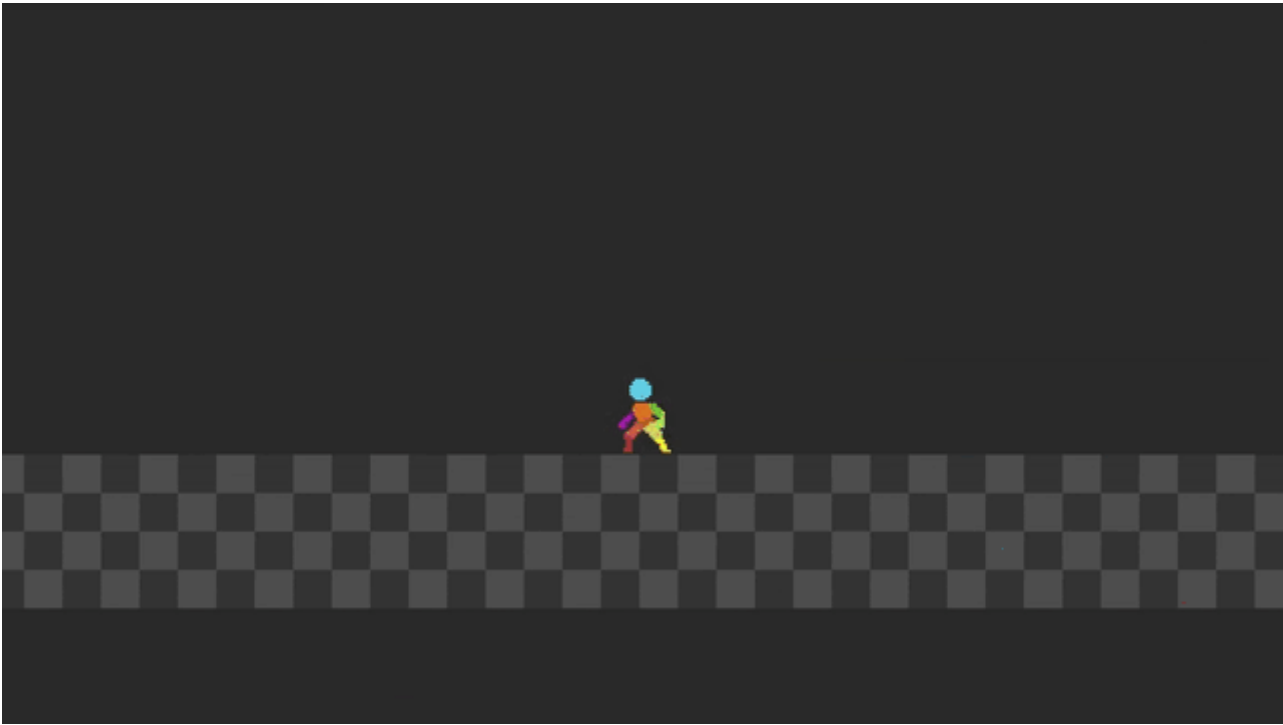| Parameter name	Description
GroundDetectionRayLength	Length of raycast for ground detection
HeadDetectionRayLength	Length of raycast for head collision detection
HeadWidth	Width parameter for head collision detection
WallDetectionRayLength	Length of raycast for wall detection
WallDetectionRayHeightMultiplayer	Height multiplier for wall detection raycast
GroundLayer	Layer mask for ground detection

Walk
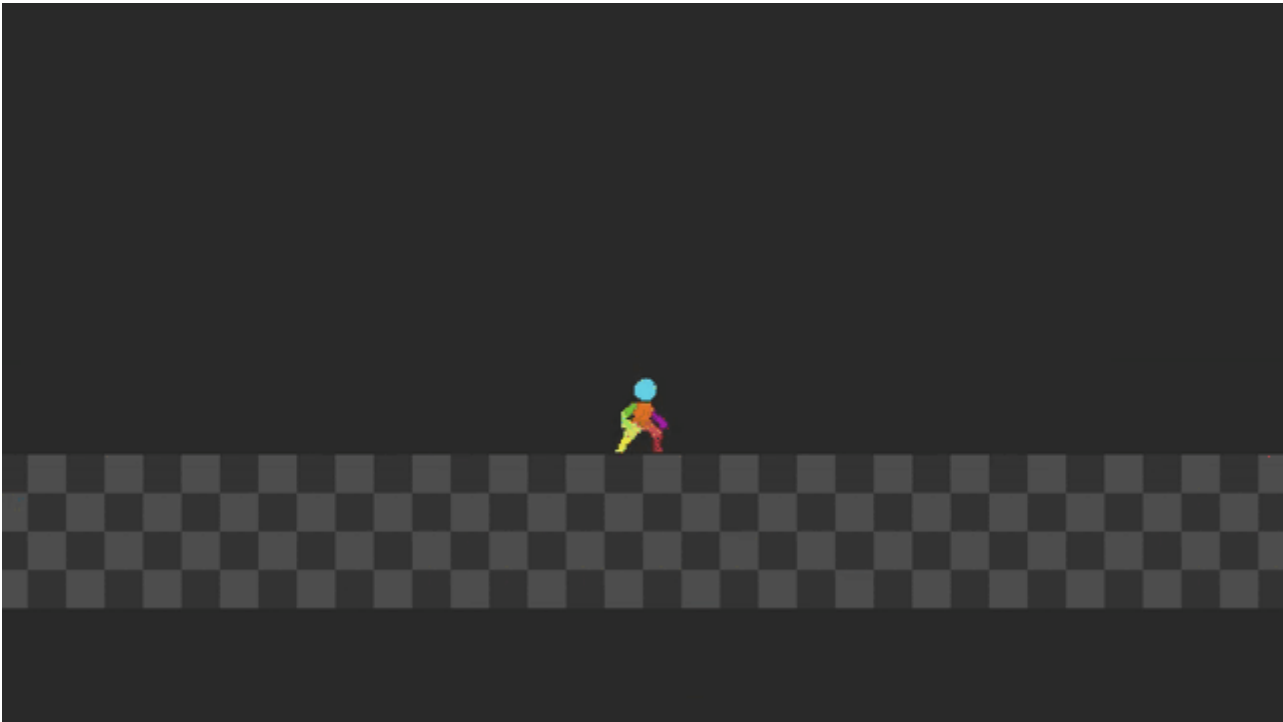
Walk Parameters

Parameter name	Description
WalkSpeed	Character speed while walking
WalkAcceleration	Acceleration of the character while walking
WalkDeceleration	Slowing down the character while walking
WalkAirAcceleration	Acceleration of the character in the air from walking
WalkAirDeceleration	Slowing down a character in the air from walking

Run

Run Parameters

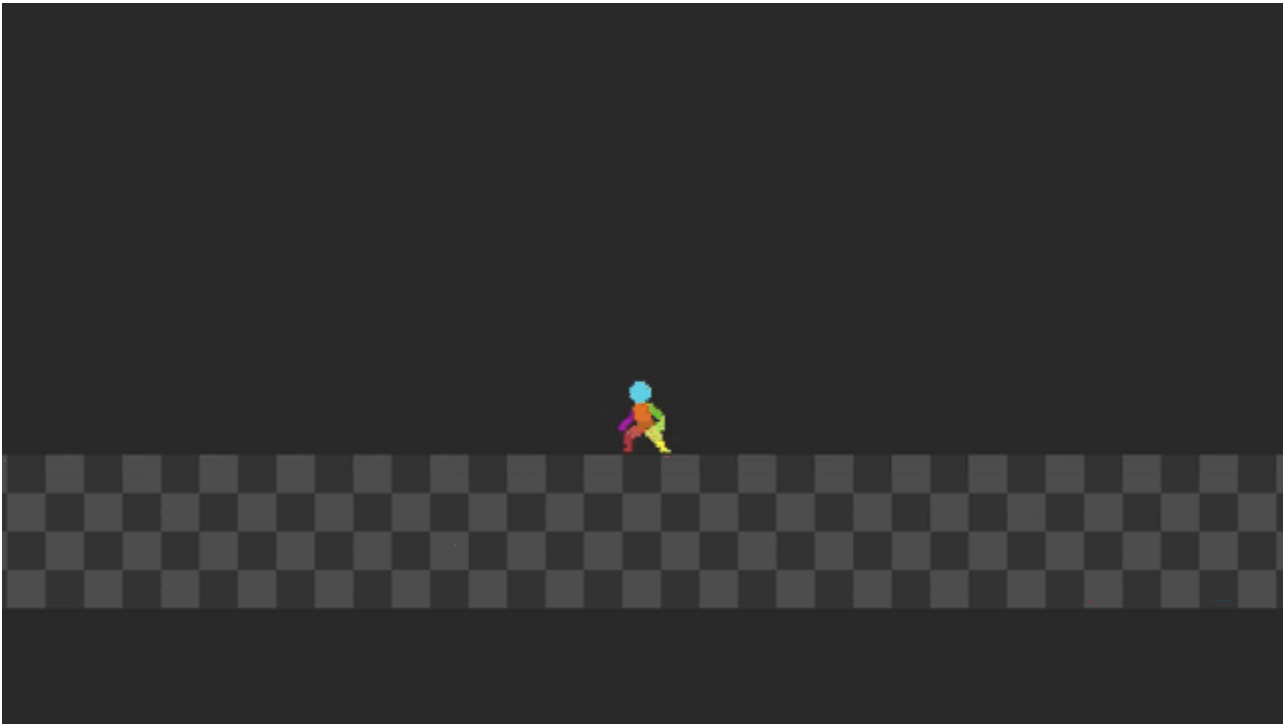| Parameter name	Description
RunSpeed	Character speed while running
RunAcceleration	Acceleration of the character while running
RunDeceleration	Slowing down the character while running
RunAirAcceleration	Acceleration of the character in the air from running
RunAirDeceleration	Slowing down a character in the air from running

Jump

Jump Parameters

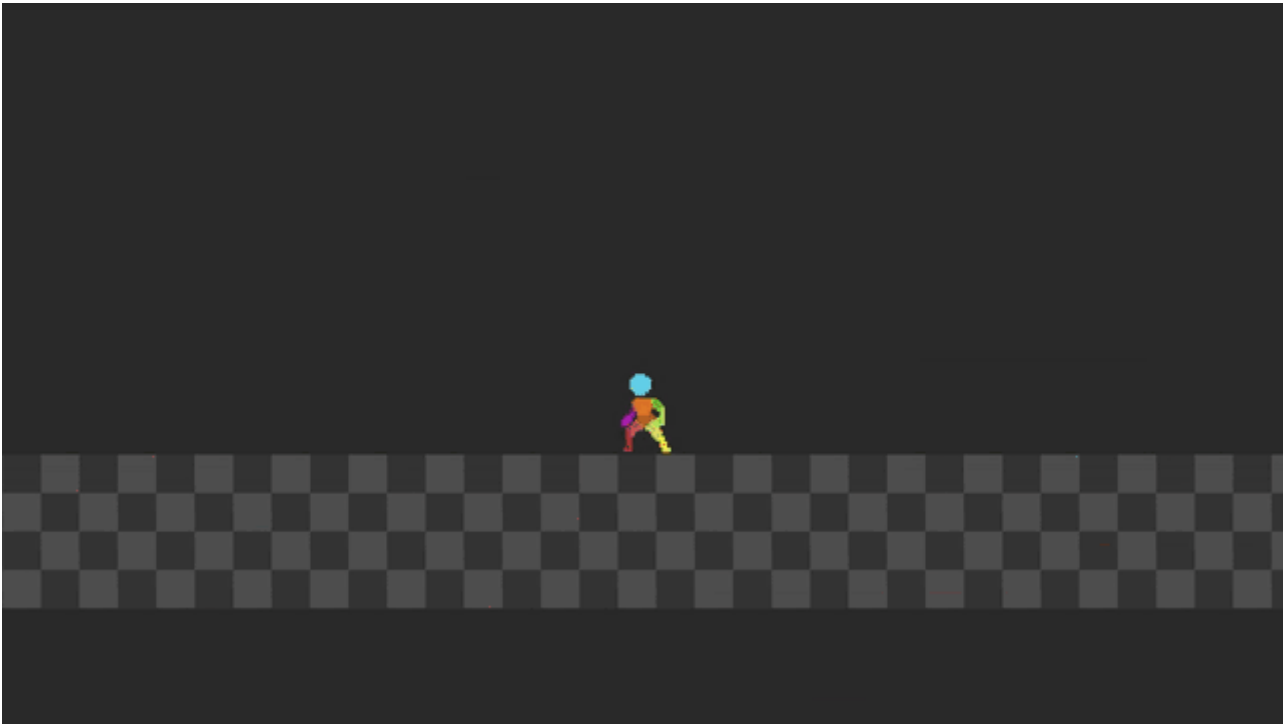| Parameter name	Description
MaxJumpHeight	Maximum jump height
MinJumpHeight	Minimum jump height
TimeTillJumpApex	Time to jump peak
JumpHeightCompensationFactor	Jump height compensation factor
JumpGravityMultiplayer	Gravity during jump (upward flight)
FallGravityMultiplayer	Gravity during fall (downward flight)

Variable Jump

Multi Jump

MultiJump Parameters

Parameter name	Description
MaxNumberJumps	Maximum number of jumps

Buffer Jump

Buffer Jump Parameters

Parameter name	Description
BufferTime	Timer for buffer jump (works for WallJump)

Coyote Jump
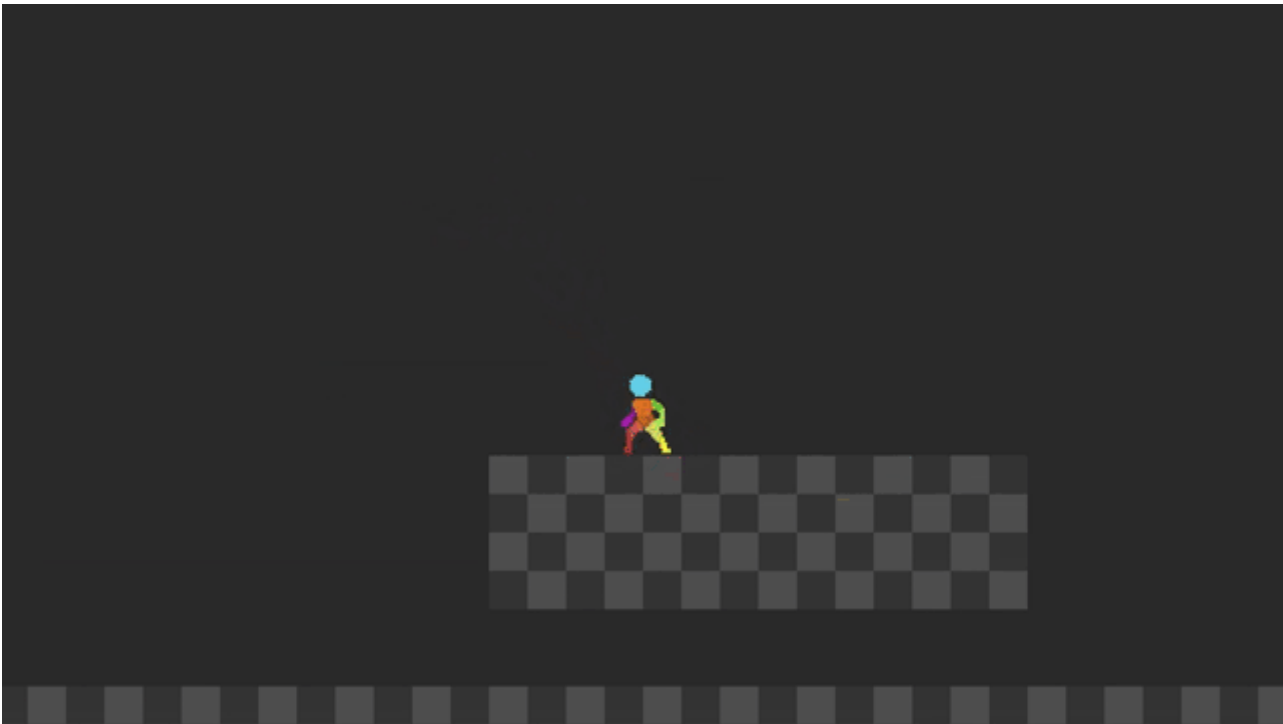
Coyote Jump Parameters

Parameter name	Description
CoyoteTime	Timer for coyote jump

Dash

Dash Parameters

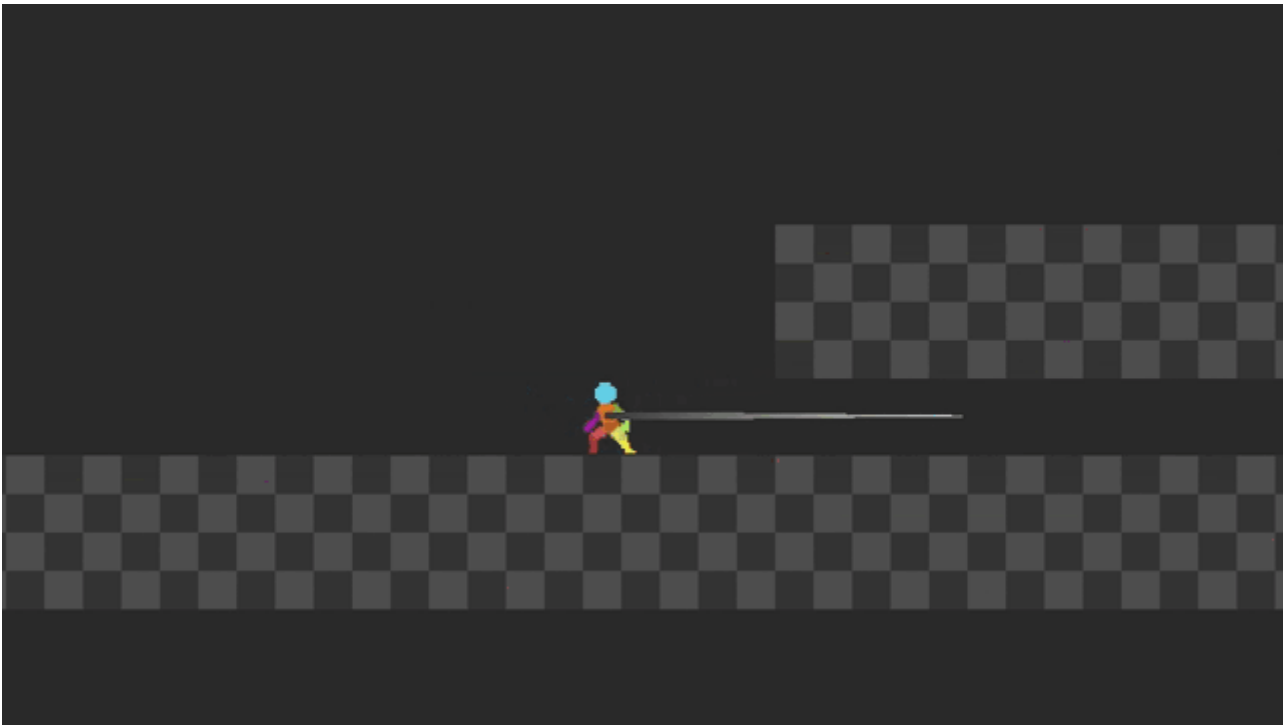| Parameter name	Description
DashVelocity	Dash force
MaxNumberDash	Maximum number of dashes
DashTime	Timer for dash
DashFallSpeed	Speed during fall after dash
DashFallAirAcceleration	Air acceleration after dash
DashFallAirDeceleration	Air deceleration after dash

Crouch
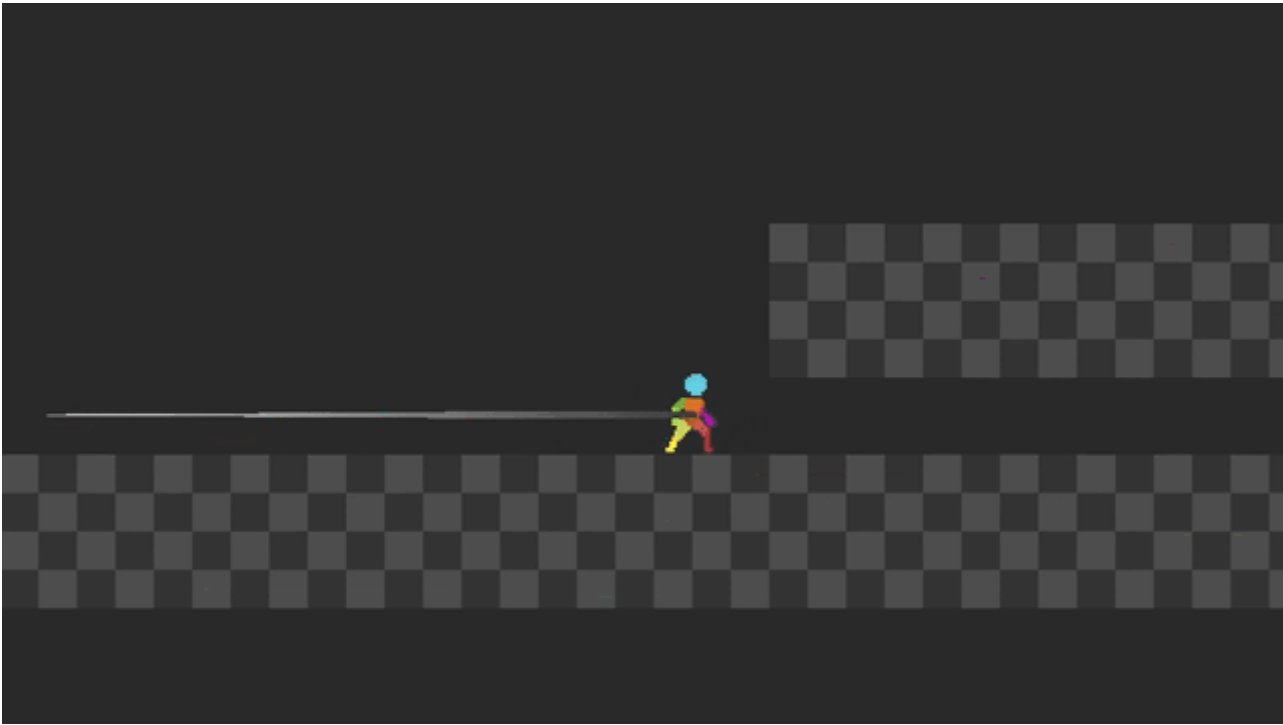
Crouch Parameters

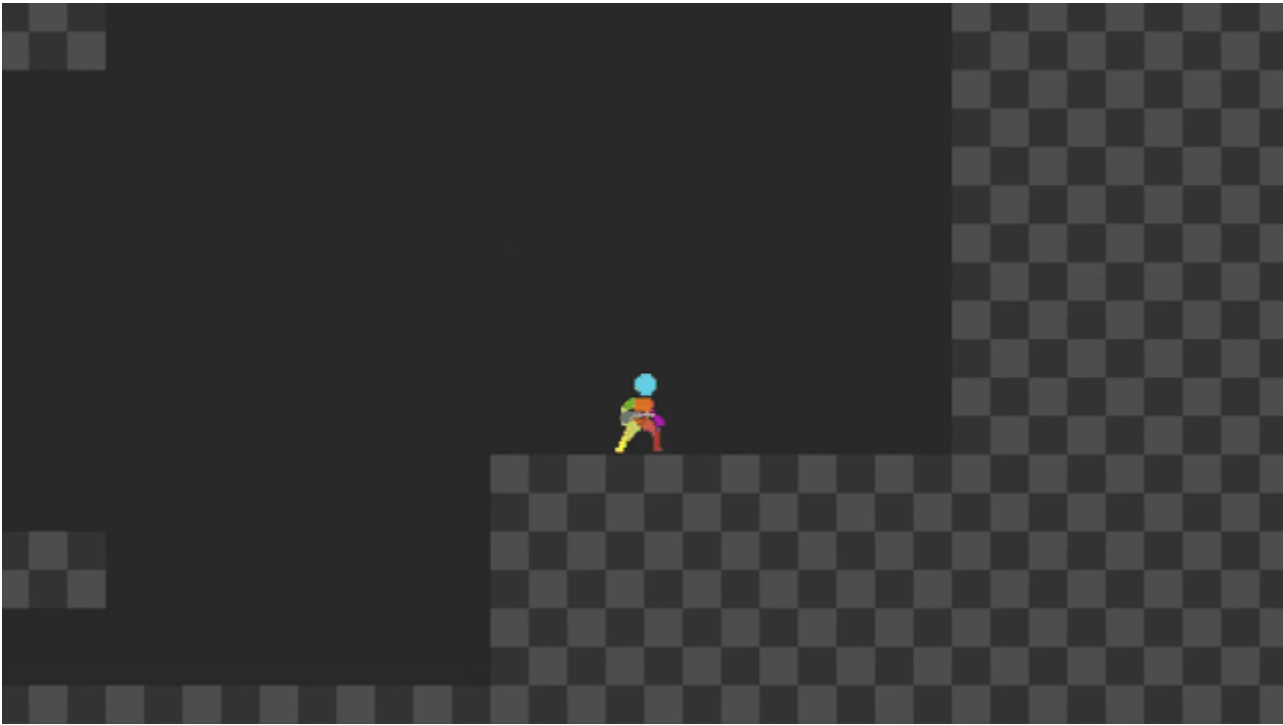| Parameter name	Description
CrouchMoveSpeed	Movement speed while crouching
CrouchAcceleration	Character acceleration while crouching
CrouchDeceleration	Character deceleration while crouching

Crouch Roll

Crouch Roll Parameters

Parameter name	Description
CrouchRollVelocity	Crouch roll force
CrouchRollTime	Timer for crouch roll

Wall Slide

Wall Slide Parameters

Parameter name	Description
StartVelocityWallSlide	Initial sliding velocity
WallSlideSpeedMax	Maximum allowed sliding speed
WallSlideDeceleration	Deceleration while sliding
WallFallTime	Time to detach from wall sideways (detach, not jump)

Wall Jump
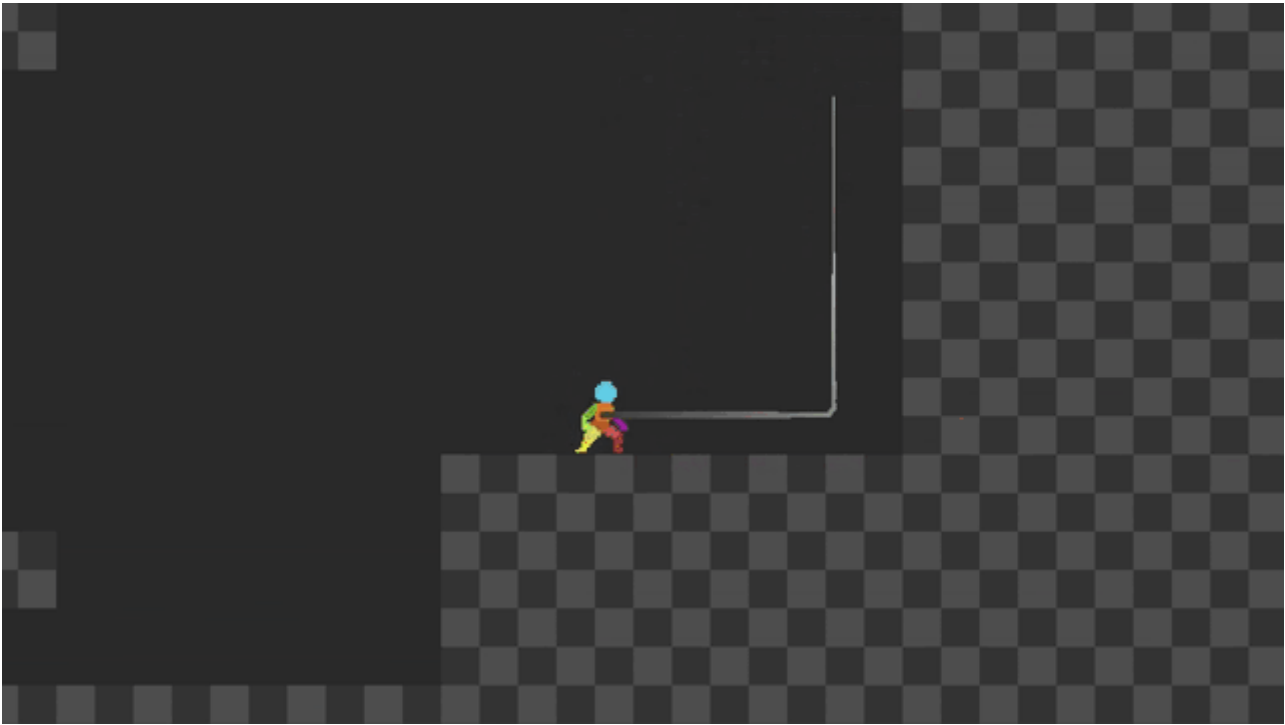
Wall Jump Parameters

Parameter name	Description
WallJumpClimb (X, Y)	Jump towards the wall
WallJumpOff (X, Y)	Jump off the wall (simple jump button on wall)
WallLeap (X, Y)	Jump to the opposite side of the wall
WallJumpTime	Time for input command after pressing jump button on wall
WallFallSpeed	Speed during fall after wall jump
WallFallAirAcceleration	Acceleration during fall after wall jump
WallFallAirDeceleration	Deceleration during fall after wall jump