

# Feature Specification – Dash



Everything that follows only applies to stage 3

There is no dash in stage 1

The dash in stage 2 remains the way it is right now

## 1. Functionality

Activated using SHIFT (single press)

Goes in the direction you are moving

Forward, if standing still on activation

Has cooldown that starts on activating the dash

Dash cooldown icon is shown

Starts with full grey background

Grey background goes down as cooldown expires

Once ability is ready again, dash icon glows and is hidden after a very short time

**Not** instant, more like movement speed is animated over time

Speed increases rapidly and slows down towards the end of the dash

Custom curve is used to define the speed at any given time

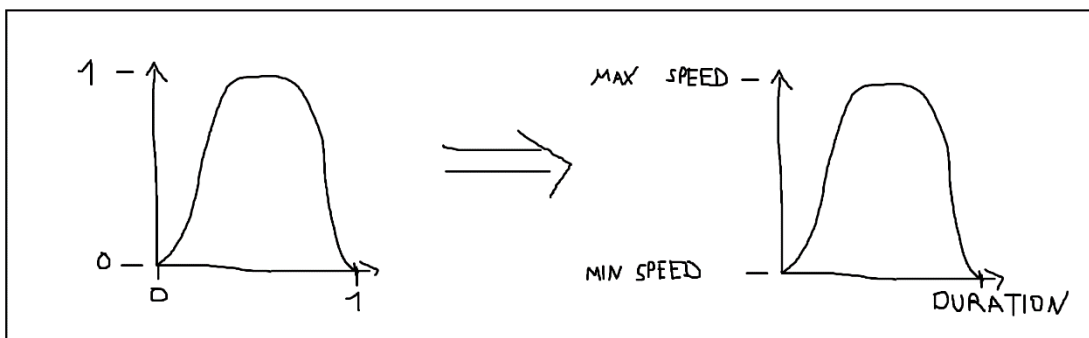
Minimum dash speed and maximum dash speed are variables

Curve goes from 0 to 1 (on the y axis) and resembles the speed as a percentage between minimum and maximum dash speed at a given time

Dash ends after a certain duration (**not** after a defined distance)

Duration is another variable

Custom curve from before goes from 0 to 1 (on the x axis) and resembles a point in time as a percentage between 0 and the dash duration



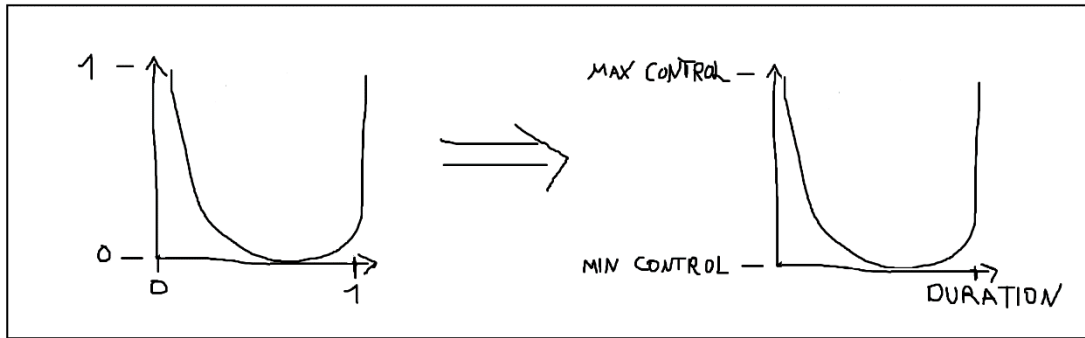
Player has a limited degree of control over the direction (**not** speed) while they are dashing

Just like air control for example

This control factor changes over the course of the dash (e.g. you regain more control as the dash comes to an end)

Again, the minimum and maximum control factor should be variables

The interpolation between those two values follows another custom curve

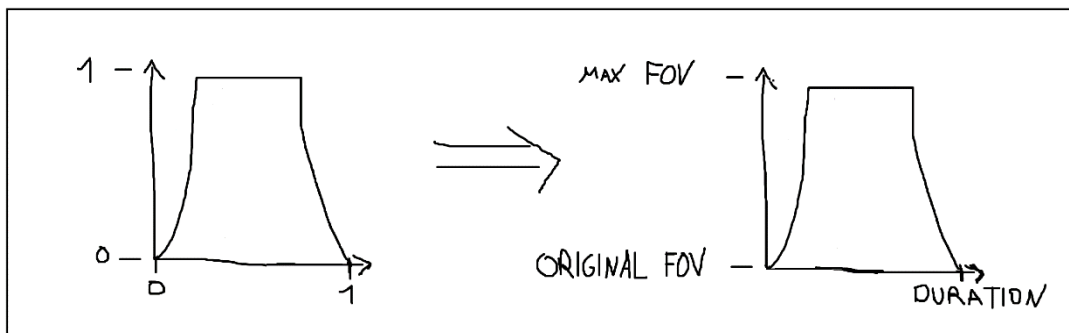


## 2. Visual effects

Field of view (FOV) increases during the dash and returns to the original value as you come to a stop

Maximum FOV should be a variable, minimum FOV is the value we are using for the rest of the game

FOV changes according to another custom curve, resembling the percentage of maximum FOV at a given point in time (as percentage of the dash duration)



Speed lines screen effect is shown on the HUD (below all other UI elements) during the dash



Lights of the bow are activated when dash is ready again

Lights flash during dash and then go out for the duration of the cooldown

## 3. Additional functionality (optional)

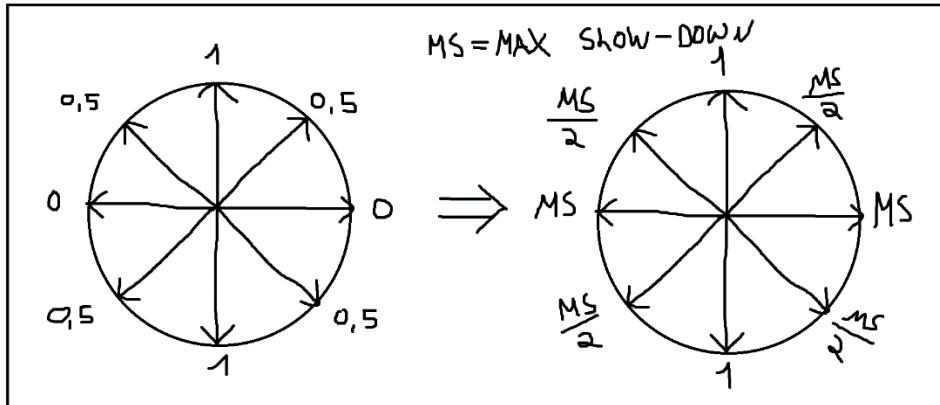
Dashing sideways should be shorter than dashing forward/backward

Since dash duration is fixed, speed has to be affected

Maximum slow-down factor should be a variable

Needs to be part of the dash speed calculation each frame (as a multiplier at the end)

How much of the maximum slow-down factor is applied, depends on the direction of the dash when activating it (slow-down factor to apply is **not** recalculated each frame)



#### 4. Exposed variables

Dash cooldown (float)

Dash duration (float)

Minimum speed (float)

Maximum speed (float)

Speed over time (curve)

Minimum dash control (float between 0 and 1, slider)

Maximum dash control (float between 0 and 1, slider)

Dash control over time (curve)

Maximum FOV during dash (float between 60 and 179, slider)

FOV over time (curve)

[Optional] Maximum sideways slow-down factor (float between 0 and 1, slider)