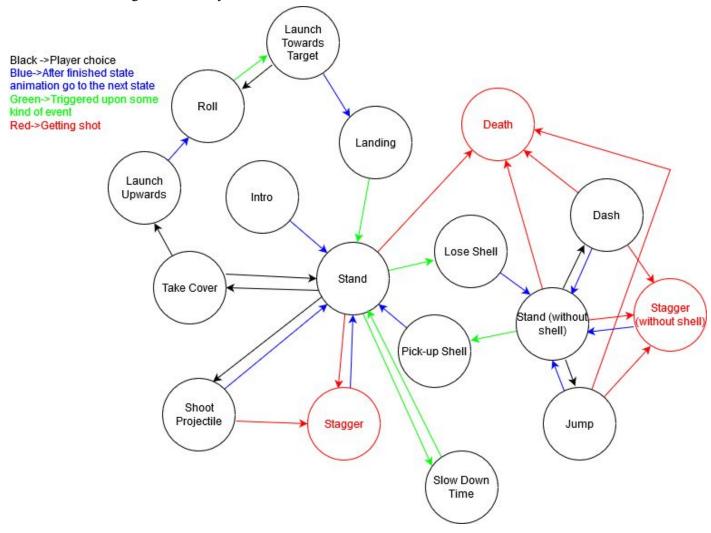
# Weekly Report I

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# State diagram

Below is the state diagram of the Crystal Snail:



### State transition table

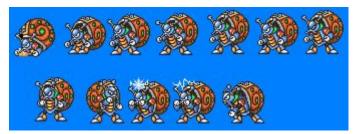
Below is the transition table for all of the states:

<b>Previous State</b>	Next State	Trigger
Intro	Stand	Intro animation is finished
Stand	Take Cover	CS decides to take cover
Stand	Shoot Projectile	CS decides to shoot projectile
Stand	Stagger	CS gets shot
Stand	Lose Shell	CS gets hit by magnet trap

Stand	Death	CS gets shot and HP=0
Stand	Slow Down Time	CS HP gets low enough
Take Cover	Stand	CS decides to stand
Take Cover	Launch Upwards	CS decides to launch upwards
Launch Upwards	Roll	Launch upwards animation is finished
Roll	Launch Towards Target	After a certain duration and angle is aligned to target position
Launch Towards Target	Landing	Launch Towards Target animation is finished
Launch Towards Target	Roll	CS decides to roll
Landing	Standing	CS hits floor
Shoot Projectile	Stand	Shoot projectile animation is finished
Shoot Projectile	Stagger	CS gets shot
Stagger	Stand	Stagger animation is finished
Slow Down Time	Stand	Certain duration
Lose Shell	Stand (without shell)	Lose Shell animation is finished
Stand (without shell)	Pick-up Shell	CS is standing on shell
Stand (without shell)	Dash	CS decides to dash
Stand (without shell)	Jump	CS decides to jump
Stand (without shell)	Stagger (without shell)	CS gets shot
Stand (without shell)	Death	CS gets shot and HP=0
Pick-up Shell	Stand	Pick-up Shell animation is finished
Dash	Stagger (without shell)	CS gets shot
Dash	Death	CS gets shot and HP=0
Jump	Stagger (without shell)	CS gets shot
Jump	Death	CS gets shot and HP=0

# Sprite sequence for every state (taken from spritesheet):

Below are the sprite animation sequence for each state & state transition:



Stand



Take Cover (not in sequential order)



Shoot Projectile (not in sequential order)



Stagger



Lose Shell

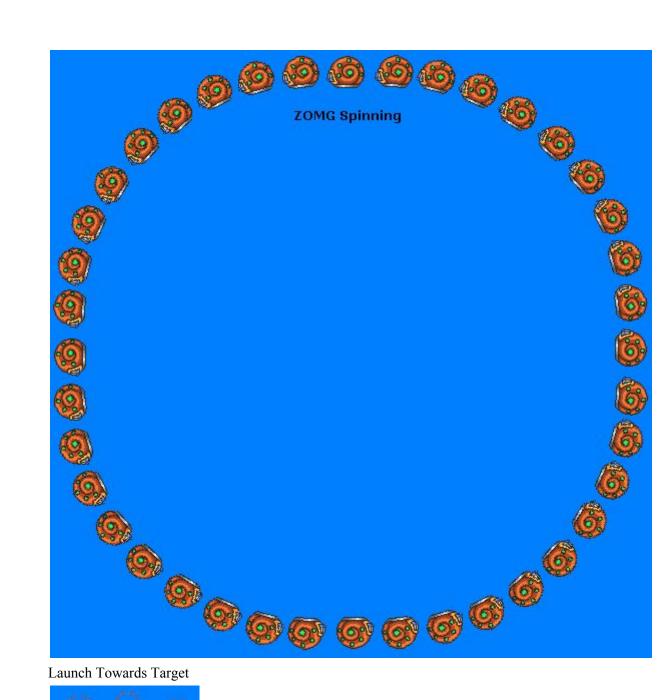




Launch Upwards (upside down)



Roll



Launch Towards Target



Landing



Death



without shell Stand (without shell)



Pick-up Shell



Dash



Jump



Stagger (without shell)



# Reference

Below are the links for the animation reference: <a href="https://www.youtube.com/watch?v=roCO2b7Y5Ng">https://www.youtube.com/watch?v=roCO2b7Y5Ng</a>

https://www.youtube.com/watch?v=ZPnMz3bfFfk