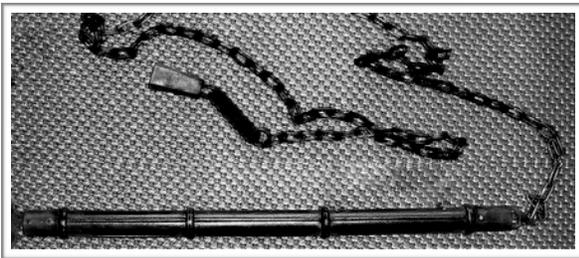


# Hero Design

## *Look and Feel*

### Female Naginata Warrior

My hero design features Makoto, a female *Sōhei* or Buddhist warrior monk. The *naginata* in her hand is an iconic pole weapon of her era, feudal Japan, that utilizes leverage for powerful attacks at a long range. The Buddhist robes shrouding her figure and face obscure the lines between feminine and masculine; evoking the mystery of her persona as well as allowing players to easily embody her character. Both a zen monk and a fierce warrior, Makoto's juxtapositions compel players to inquire into a recognizable theme: the tension between valuing peace and the need to fight during dire times. Both players and Makoto will struggle with this theme following the destruction of her temple by a rival clan. Using her warrior spirit and her unique *naginata* that is tethered to her by a chain, players take control of her as she sets out on her quest for survival. Makoto's compelling personality, appearance, and choice of weapons all work together to foreshadow the distinctive combat mechanics and experiences that await her players.



# Controller Layout

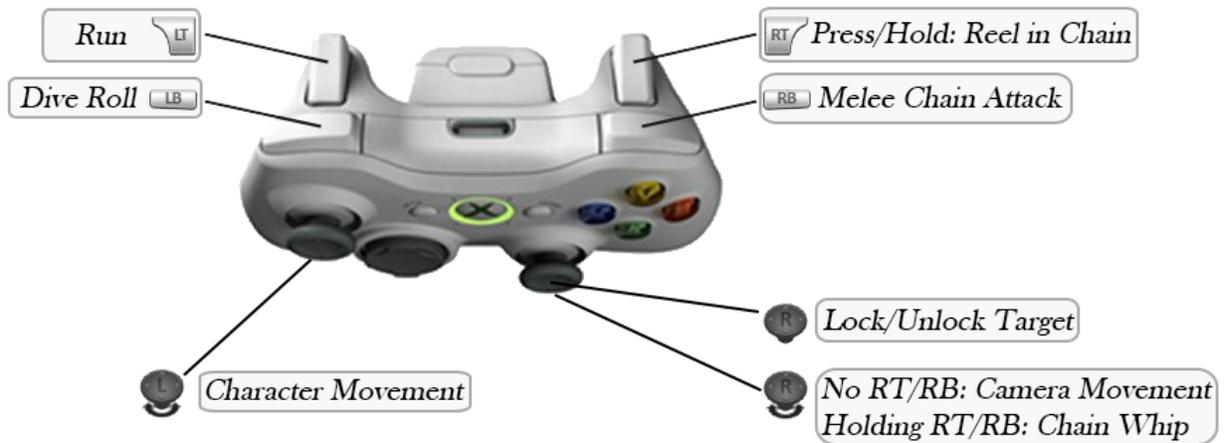
## *XBOX 360 Control Scheme*

### *With Naginata*



\* Face buttons could be used for adventure-related items such as a heal, projectiles, or traps, but are beyond the scope of this document.

### *Without Naginata*



# Hero Abilities

## *Core Mechanics: Melee*

### Melee-Roaming Overview

As per recent 3D Action Adventure traditions, the **left stick** moves the character, and the **right stick** controls the camera's position within a spherical orbit of Makoto. This document will thoroughly review the melee moveset first. Slashing and thrusting with Makoto's *naginata* by pressing the **right bumper** provides the game's primary offensive mechanic. There are six unique melee attacks that can be performed depending on the input of the **left stick** and what other moves have already been executed in the attack string. By either leaving the **left stick** alone\*, gently tilting, or quickly smashing it while they press the **right bumper**, players can string together unique attack combos. Additionally the **left stick** input will influence the direction of attacks in the animation's startup lag to allow players to aim their attacks. The **left stick** input and attack characteristics are intuitively paired. For example, attacks with no control stick input have less positional movement than tilts, and tilts have less positional movement than smash attacks. The attacks vary in attack range, hitbox width, stun, knockback, positional movement of Makoto, attack duration, startup lag for active hitboxes to appear, and ending lag after active hitboxes have disappeared. So depending on the circumstance players find themselves in mid-attack, they have a variety of options due to distinct functionality and values between the available attacks. This system provides mechanical depth by giving players a variety of options available to them opposed to exclusively having pre-made attack combos.

### Naginata Neutral Attacks

Performed with a **right bumper** input and **no left stick\*** input, Makoto's two neutral attacks are a vertical slash and a horizontal hip slash. The vertical slash is a short range attack placed directly in front of the player. It is safe and fast, but not very strong, functioning similarly to an in-place jab. The horizontal hip slash is

\*A reasonable deadzone will be used to allow players to perform the neutral attacks easily as well as to allow players to influence attack direction with proper finesse if necessary.

a medium range, wide hitbox attack covering 180 degrees in front of the player. It is strong and slow, but covers a large area, functioning as an AoE attack. It can be performed by hitting the **right bumper** in the last half of the vertical slash animation's duration. If a neutral input is given in the last half of the horizontal hip slash, then the attack combo will start over from the first attack, which in this case is the vertical slash.

## Naginata Tilt Attacks

Performed while holding the **left stick** far in a direction during a **right bumper** input, Makoto's three tilt attacks are the forward thrust, sweeping slash, and the finishing spin attack. The forward thrust attack is a long range, narrow hitbox attack where Makoto steps forward. It functions as a relatively quick and safe poke, closing space between the enemy and player. The sweeping slash is a medium-long range, wide hitbox that covers 120 degrees to the side of the weapon's tip that players are inputting towards. The side sweep is unique in that it will start the attack's 120 degree arc from wherever the spear is and since it can be done from a variety of moves, provides an interesting defensive functionality. It has low startup lag but higher end lag and can only be done in an attack string after a forward thrust. The finishing spin attack is an all-encompassing move that has multiple hitboxes covering 360 degrees around the player as Makoto takes several steps forward. There is significant forward movement, making it feel weighted. It functions as a high-damage finishing move, with overall long duration, making the player susceptible to punishment if the attack does not hit all nearby enemies.

## Naginata Smash Attack

Performed by simultaneously smashing the **left stick** to its extreme and giving a **right bumper** input, smash attacks feel tactilely distinct and visceral from other player actions. Providing this input successfully will result in a leaping slash, where Makoto will jump forward in one decisive motion slashing with all her might. This is her strongest melee attack with high knockback, stun, and damage.

*Side note: Visual reference in the form of animated gifs for each attack animation can be found at: <http://imgur.com/alpazG0> or within the "Resources" folder paired with this document.*

# Hero Abilities

## *Core Mechanics: Projectile*

### Naginata Throw

In addition to being the primary melee weapon, the *naginata* also serves as a projectile that Makoto can throw in a spear-like fashion. Upon holding the **right trigger**, players will enter an aiming state. The camera will sweep and lock behind Makoto into an over-the-shoulder view, with the character off-center and a reticule appearing at the center of the screen. The **left stick** will continue to move Makoto, with the X-axis providing strafing, and the Y-Axis providing forward-backwards movement. However, movement while aiming is significantly slower than in the melee-roaming state. The **right stick** will control aiming, with the X-axis changing yaw rotation and the Y-Axis changing pitch rotation. Furthermore, clicking the **right stick** will lock onto enemies that are within ten character strides, about half the length of the *naginata*'s projectile range. If during the aiming state players inputs an attack, dodge, or run, the state will be cancelled with the respective input. Finally, if players release the right trigger while still in the aiming state, Makoto will launch the *naginata* towards the reticule.

This attack is the players' most powerful tool, doing up to twice as much damage as the strongest melee attack, thus validating the risk of temporarily parting with their primary weapon. The soaring *naginata* will travel in a projectile arc; punching through and impaling weaker enemies in order to clear a path. However if the *naginata* strikes a stronger enemy or the environment it will become stuck. Retrieval after throwing is key, and results in a gameplay loop with an interesting contrast. Possessing the *nagitata* results in action heavy combat centralized around spacing attacks and confronting enemies, which contrasts with the terrain navigation, pronounced mobility mechanic use, and enemy avoidance required after throwing. Thus, players can break up the monotonous feeling of a button mashing beat-em-up whenever they so choose.

# Hero Abilities

## *Core Mechanics: Secondary*

### Naginata Chain

Makoto's secondary item, a long chain tethering her and her trusty *naginata*, provides an interesting change of pace with unique gameplay after the *naginata* is thrown. Although left relatively vulnerable without their primary weapon, players can still attack with the **right bumper** to execute melee attacks with the slack of chain in order to stun enemies; inflicting hitstun but negligible damage. As long as the right bumper is held, players can spin the **right stick** in circles to whip the slack above their head, stunning enemies surrounding them.

The throw input, **right trigger**, now initiates a pulling state. While holding down **right trigger**, Makoto will continuously reel in the *naginata* chain. The camera will sweep upwards to ensure both the *naginata* and Makoto remain in view. The **left stick** influences players' movement as in all other states, but again will be slower than melee-roaming. Furthermore while holding the **right trigger** moving the **right stick** will now apply forces to the base of the chain, with delta values of the X-axis providing magnitude and direction for side-to-side influence, and the delta values of the Y-Axis providing the same for forward-backwards influence. This allows players to control and whip the chain as they pull it in. If the links of the chain have enough velocity, they will provide small stuns to enemies on collision. If the player runs away from the *naginata* when it is unstuck, the player can drag it around otherwise, if it is stuck, the player will be staked down as a collared dog. When the player does not have the *naginata*, the gameplay changes, however the game must still allow the player to have some level of familiarity, such as movement and some form of melee attack. The chain importantly fills that hole created by the absence of the *naginata*, providing a melee attack while also introducing some unique elements that ensure that the both phases of play feel unique from each other and complement one another's design.

# Hero Defense

## *Evade*

### Dive-Roll

As both a defensive and mobility mechanic, players can perform a dive-roll in their currently facing direction with a **left bumper** input. The move provides both a burst of speed and invulnerability frames along with vulnerable recovery frames towards the end of the animation to discourage players from dive-rolling directly into enemies. Makoto will still collide with enemies and environment while dive-rolling, although she will have smaller geometry, allowing players to get through an opening in enemy lines that she may not be able to walk or run through otherwise. Additionally, dive-rolling over the *naginata* on the ground will result in an acrobatic and safe retrieval of Makoto's main weapon. In order to balance dive-rolling continuously, players cannot dive-roll again until Makoto takes at least one step after the animation ends, approximately a tenth of a second.

The intent in choosing an evade as my defense mechanic over a parry or block lies in the desire to both complement the offensive core mechanics and remain in-line with the character design. Gameplay is centralized around the *naginata*. Both possessing it for melee combat and throwing it prove powerful, so giving the player a proactive mobility mechanic to retrieve it is invaluable. Blocking is stationary and passive, and parrying is stationary and reactive. Blocking could be construed into a mobility mechanic as a shielded charge, but the idea conflicts with the rest of the character's design. Evading accomplishes both of my intended goals. By complementing the offensive mechanics, this defensive mechanic choice reinforces the proactive nature of the game and reinforces the light and fast character design of Makoto.

# Enemy Design

## *Average-Player Enemy*

### Weak Mob-based Enemy

The main enemy type confronting Makoto will be an easily defeatable, yet numerous mob-type enemy: rival warrior monks of the dangerous *Ikkō-ikki* sect. The warrior monks of this sect don similar apparel as Makoto, yet they come from more humble origins and therefore wield less advanced weaponry such as pitchforks, scythes, and hoes. The monks are eliminated with one strong or two weak hits and damage Makoto with their melee attacks for a small fraction of her total health. The ease of defeating this enemy type one-on-one will afford average players a chance to learn the hitboxes of their moveset and produce a feeling of accomplishment. However in a group of twelve, this enemy can pose a threat and will challenge players. In groups they will have unique behaviors such as fanning out to surround and flank the player. If a player recklessly charges in performing high lag moves without care, they will be punished and possibly surrounded.

### Combat Encounter with Rival Monks

A sample engagement might begin with players traveling into a local town and running into a group of a dozen rival monks. Players may use their high damage *naginata* throw to both thin their number and initiate the fight. In order for players to ensure the *naginata* gets back to them before the monks do, they will likely need to chain whip while pulling it back or find a way to navigate around the enemies. When first coming into melee range the flanking behavior incentivizes players to utilize low lag melee attacks while continuing to back up to prevent being surrounded when not at a choke point. If Makoto does become surrounded, some players may panic utilizing high lag melee AoE attacks to hit clumps of the monks. Nearby monks will jump at Makoto's back, punishing players that do not use their camera to view other monk's positioning before using strong attacks. Other players may opt for escape utilizing the *naginata* throw to puncture a hole in the monks' ring to dive-roll out to safety. With nimble movements and patience, a player could even

choose to strictly use the *naginata* throw, aiming, throwing, weaving and evading enemies to get the *naginata* to throw it again until no enemies remain. Whatever the situation, avoiding encirclement and keeping an eye on enemy positioning remains the most efficient strategy against this enemy type.

## Enemy Design

### *Expert-Player Enemy*

#### Large Aggressive Charging Tank

The second enemy type confronting Makoto come in the form of more formidable adversaries: heavily-armored samurai cavalry of the *Takeda* clan. A well-armed samurai on horseback outmatches Makoto in armaments, with its two weaknesses being its turning radius and the horse's unarmored underbelly. The armored cavalry can take over a dozen direct attacks, but if players use a strong horizontal slash to trip the horse and then throw their *naginata* at its unarmored underside the horse can be immediately incapacitated. Additionally several thrusts via tilt attacks into a horse's belly will be effective in dispatching this threat. If the player takes too long, the samurai may mount the horse once he and the horse get to their feet again. After the horse is eliminated the samurai is wounded and behaves similar to an individual warrior monk. When on horseback, aggressive charges from this enemy take a large portion of players' health, and while off horseback the samurai's health and damage are similar to the monks. Throwing the *naginata* at the samurai while on top the horse will knock him off, also removing the horse from this battle as it gallops away. However if a thrown *naginata* hits the horse's armor, the *naginata* will become stuck in the horse's armor and drag the player until it becomes dislodged, damaging players for smaller fraction of their health.

A sample engagement might begin with players traveling down a rural road and chancing upon a lone armored cavalry outside a solitary inn. Stealthy players may try to sneak up to the enemy and dismount the samurai with a *naginata* throw to start the engagement. However miscalculating the range and arc of the throw may

result in players hitting the horse and going for an unpleasant ride, leaving them damaged and disadvantaged with their *naginata* out of reach and on dangerous ground. Here, the chain proves useful; allowing players to stun the samurai and buy precious time to retrieve their weapon. Either due to a lack of aim or patience, some players will have to brave a head on fight. Waiting until the samurai's cavalry charge is close, players can dive-roll off to the side to avoid damage and take advantage of the horse's slow turning to either trip it up or aim another *naginata* throw. Once successfully dealing with the horse there is only a one-on-one samurai duel left to end the engagement. The catharsis of finishing the enemy on more even ground will undoubtedly provide relief and accomplishment to players that are defeating the enemy for their first time.



# Combat System Elevator Pitch

"You know those desperation scenes in action movies when the good guy has to either throw his weapon at the bad guy, or scramble to grab it before he's killed; imagine a whole game of *that.*"



This artistic rendition is credited to Andres Nelson.