

HARMONIC DEFENDERS

A Core Mechanic Document

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Brief Overview

Harmonic Defenders is a single player, action RPG/tower defense game for the PC, akin to *Torchlight* or *Diablo*. Its differentiator is that it has a rhythm component to it that serves as a combat mechanic. The units the player has at its disposal each have a certain percussion instrument as a weapon. Each unit type is used to fend off certain enemy types. The player must quickly and properly place these units to keep up with the rhythm and restore waves of evil spirits.

Theme

In *Harmonic Defenders*, a Shaman in training, set on being the best, intentionally defies his training and casts forbidden mystical spells that corrupts the spirits and reverses their roles. The spells, in turn, corrupt the Shaman and he begins to use the spirits as his own personal army against the living.

These spirits are at unrest because the Shaman has created disharmony within them. Their goal is to now punish the good and reward the wicked. In order to stop them, the harmony must be restored. A perfect musical rhythm will restore the spirits to their natural order. To right what has been set wrong, the remaining shamans gather up the best musicians around and send them on a quest to convert the spirits back to their original harmony.

Goal

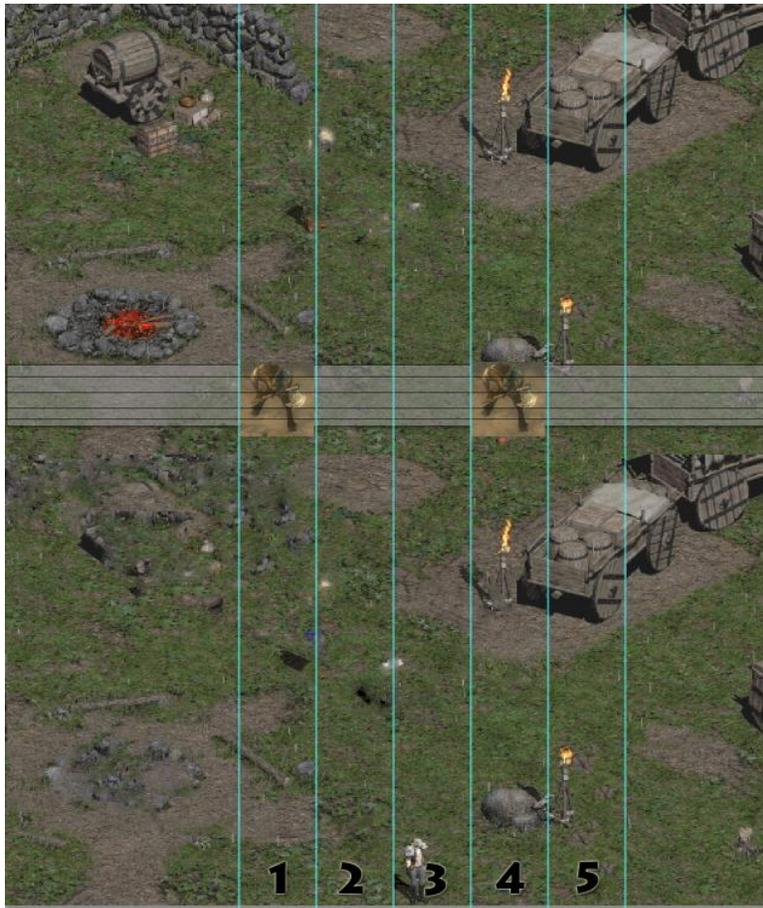
The goal in *Harmonic Defenders* is to fend off waves of malevolent spirits. In each level there will be three waves of enemies, with each wave increasing in difficulty. The player must stand their ground and convert waves of spirits. Once the player has restored all spirits to perfect harmony, the level is complete. The player fails when they cannot restore harmony. Completing the goal requires rhythm based combat, unit strategy, and character progression.

Combat

Harmonic Defenders offers a unique take on typical tower defense/action RPG combat. Combat uses a familiar rhythm mechanic that you would often see in *Guitar Hero* or *Rockband*. For example, visualize the typical *Guitar Hero* layout where you have five lanes of moving notes. Each lane has a different color representation, corresponding to a different button on the guitar. Now forget about color and focus on the lanes.

In *Harmonic Defenders*, over the environments (similar look and feel to *Diablo* or *Baldur's Gate*), there are five lanes consisting of moving spirits. The player's goal is to hit these enemies in a rhythm in order to restore them to order. The spirits move down the lane towards the player. They cannot switch lanes they spawn from and they can only move down the lane (not up). Eventually, the spirits will cross into a small threshold similar to a musical staff. This indicates to the player that it's time to hit a corresponding button to begin a rhythm.

Like *Guitar Hero*, the five lanes have a certain button representation. In *Harmonic Defenders*, each lane is represented by the numbers 1 through 5 on the keyboard. If a spirit walks down lane #1 and enters the threshold, the player will need to hit the number 1 key (on either the numerical pad or the standard number keys) to restore that spirit. If the player fails to do so, then Harmony (more on this later) is weakened. If the player is successful, the spirit is returned to normal. The player will receive experience points for each spirit it restores.



The image above is a rough diagram of what typical combat would be like. Here the player would need to hit 1 and 4 at the same time to defeat those enemies. As the wave continues, multiple spirits would keep coming down the lanes and the player would have to hit the corresponding lane number to keep in rhythm. As the player gets to the second and third waves, the number of spirits increases. While the secondary waves certainly increase the difficulty of the game, there is another facet to combat that makes it unique and difficult to master. That is the various spirit types.

Spirit Types

As the player progresses in the game they will combat a variety of different spirit types. Each spirit has its own level which dictates three parameters: speed, hit points and attack power. The low level spirits found early on in the game typically have slow speed, very little HP, and weak attack. Eventually, the player will run into spirits that are faster and may even take more than one hit to destroy. Other spirits might be slower but cause greater damage.

Speed - Dictates how fast the spirits come down the lane and how hard they are to catch in the musical staff.

HP - Their HP indicates how many times the player has to hit them in the staff to defeat them. Certain spirits may take several hits. With higher HP spirits, the player may have to hit the corresponding lane number key three or four times while the spirit is in the staff in order to restore it.

Attack power - Their attack power dictates how much damage they do to the player's Harmony Gauge when the player fails to hit them while in the musical staff.

Instrument Resistances - There is also a fourth parameter not dictated by level: instrument resistances. The key difference between spirit types is their weaknesses and affinities to certain percussion instruments. Some spirits can be defeated by multiple instruments, while others are only capable of being destroyed by one type. There are five percussive instruments that the spirit has either an immunity or weakness towards. There are no middle levels of resistance.

With the various instrument resistances, there is an added level of depth and this is where the unit strategy comes into play.

Units

During combat, the player has the ability to set units to each of the five lanes. They first select the unit type from the unit bar (which is below the combat area). The player then clicks on the corresponding lane number to place the unit. The player can swap unit types in out of lanes throughout the battle. The player has five unit types to choose from. Each unit uses one of the five instruments mentioned above as a weapon against the spirits. The instrument types are cymbals, bongos, tambourines, gongs, and xylophones.

Each unit type themselves has their own level which dictates just their attack power (the units do not have speed or HP like the spirit types). For example, say a spirit that is weak only to cymbals has two hit points. The Cymbals unit placed in that lane only has a level one attack rating. The player will need to hit that spirit two times while in the musical staff to restore it. If the unit's attack was level two, it would only take a single hit to restore the spirit.

Harmony Gauge

The Harmony Gauge acts as the player's health and resources. At the beginning of a level, the gauge is full and will go down depending on how many units the player places and how often they take damage.

As a resource, the Harmony Gauge is used to place units into lanes. How much Harmony it costs to place the unit depends on which unit is being placed and their level. A Cymbals unit may cost 2% Harmony to place, while a Xylophone unit may cost 5%. The percentages would increase based on the unit's level. Switching to a different unit type on a lane still costs the same amount of Harmony as it would if the unit

was being placed on that lane for the first time. The player will also be bound by a short cool down period before they can place more units.

The gauge will also go up or down depending on how well the player can keep the rhythm. If they hit the spirits in the correct order at the correct time, then the gauge will slowly increase and they will have more Harmony to spend on units. If the player misses a spirit, then the Harmony gauge will lower. How much the gauge lowers depends on the attack level of the spirit and the level of the player. As mentioned earlier, each spirit has its own attack rating and the higher level spirits will do more damage to the gauge.

The Harmony Gauge is a collective HP gauge for all units. No one unit has its own gauge. If the player misses a spirit, the unit set on that lane is not defeated. Harmony is merely deducted from the collective gauge and the unit remains set to that lane.

If the player cannot keep rhythm and the gauge falls to zero, the player loses the game.

Character and Unit Progression

Experience

As the player restores spirits back to order by hitting them in rhythm, they will get experience. How much experience the player earns depends on the level of the spirit defeated and the level of the player. For example, a level one spirit will net the player say ten experience points if the player is level one. However, if the player is level ten, then the level one spirit will only give one experience point.

The player can also earn experience bonuses the longer they can keep a rhythm chain. If the player restores ten spirits in a row, they will get a 2x experience multiplier, 3x for 25, 4x for 50, and 5x for 100. Getting these bonuses is necessary to efficiently and quickly leveling up your units and your overall level.

Spending Experience

There are two ways to use the experience received from combat. First, the player may choose to level up an entire unit type. For example, the player could level up the Cymbals unit from level one to level two, which would then increase all Cymbal units to attack level two. This means that every Cymbal unit placed on a lane would be level two from the start. Leveling up unit types is necessary as the various spirit types also level up as the game progresses. Which units to focus on is entirely up to the player.

The player can also level up the Harmony Gauge. The level of the Harmony Gauge represents the overall level of the player. The level on the gauge serves several purposes. First, as the level increases, the player will receive more Harmony to spend on units and use as HP. Second, it will also lower the cool

down time between placing units. Third, the level of the Harmony Gauge dictates how much experience the player receives in combat. Finally, as the player increases the gauge's level, they will also unlock special abilities in combat.

Clefs

When the Harmony Gauge reaches a certain level, the player will obtain special abilities called Clefs. A Clef ability could slow down all spirit types, while another may even wipe out all the spirits in the level. Using Clefs comes with a cool down, and each use also lowers the Harmony Gauge.

Map Hub

Before the player can begin fighting waves of spirits, they must first choose a location. The spirits have been corrupted in mostly Eastern and South Eastern Asian countries. The player must stop the spirits before they spread to the rest of the world. Starting in South Korea, the player will battle waves of spirits in environments that resemble Korean culture. From there, they will travel to different Asian countries such as China, Japan, and India.

Once a player completes a stage, more of the world map will open up and they can choose from no more than three level options at a time. Each option varies in difficulty and appearance. There are certain levels that are significantly harder but offer greater experience for those who can master them. Each selection on the map will have a recommend player level indicator informing the player of the difficulty.

The player can also continually replay levels on the map in an effort to level grind.