

Introductory Mudoran Phonology

Technical

This document contains technical information, as Mudoran is a reconstructed proto-language. While we seek to do our best to keep this grammar accessible to readers of all skill levels, you will need to understand some of the technical details in this chapter to get the most out of your time with Mudoran.

Before we go any further, we need to establish that the Mudoran (**MDR**) language presented here is reconstructed, and there are some elements of it that we simply do not know for certain at this point in time. We can only hypothesize on some elements, such as the precise sounds represented by **r₁**, **r₂**, and **r₃**, and some hypotheses presented here may be particularly wild. If you can accept that there is not a 100% definite way to read every single Mudoran word out loud, then we can continue.

Are you still with us?

Good. Mudoran is a proto-language and is proposed to be the earliest language we are able to reconstruct for the world in which Hyrule exists. The language forms stem words using consonantal roots and vowel templates, and so our phonology begins with the consonants.

Consonants

Most of the consonants in Mudoran are fairly simple at the surface level. There is only one consonant at any given place and manner of articulation used in Mudoran, and any other qualities of these sounds seems to be conditioned by stress, adjoined resonants, and vowel length.

	Labial	Alveolar	Postalveolar	Velar	Glottal
Nasal	m		n		
Stop	p		t	k	ʔ <'>
Fricative	f	s	ʃ <sh>	x	h
Resonant		r ₁	r ₃	r ₂	

This is only 14 consonants, and 11 of them are very straightforward. In the event you aren't already familiar, we'll walk through the table.

Each column of this table is a **place of articulation**, or where your mouth shapes the airflow to produce a sound. This moves from the front of the mouth on the left to the back of the mouth on the right:

Labial

Labial consonants are produced by articulation of the lips, pressing together or opening up to shape the air leaving your mouth.

Alveolar

Alveolar consonants are made by shaping the tongue around the alveolar ridge, just behind the upper teeth, to shape the air leaving your mouth.

Post-Alveolar

As the tongue pulls further back in the mouth, there is an area near the front and top of the mouth which is just past the alveolar ridge. By shaping the tongue in this area, these sounds can be made.

Velar

At the top of the mouth is the *velum* or the soft palate. By raising the back part of the tongue, sounds can be shaped from this part of the mouth.

Glottal

These sounds are made by the voice box, in the very back of the mouth.

The rows of the table are called **manners of articulation**, and they roughly show how to shape your vocal system to produce the sounds in that row.

Nasal

Nasal sounds are made by redirecting the flow of air from your mouth and through your nose, where the vibrations of your vocal chords resonate to produce a humming quality.

Stop

Sometimes called a *plosive* which reminds one of how these sounds are short and involve the sudden stop and start of airflow, like a very light *explosion*.

Fricative

Airflow isn't blocked for these, but is constricted by bringing the tongue near the place of articulation. These sounds can easily be held, and the more *hiss*-like sounds in this group are also called **sibilants**, like /s/ and /ʃ/

Resonant

Resonant is a style of articulation, but we are uncertain exactly what manner of articulation was used for each of our three reconstructed resonant sounds. We know what languages tended to have after the sounds disappeared, and how different daughters of Mudoran compensated for these sounds' disappearances, but we can only guess at what they actually were.

We have chosen the term **resonant** because it seems most probable that these sounds were voiced and were either vowels, semi-vowels, or nuclear consonants.

r₁

The sound represented by r₁ is strongly believed to have been an approximant, a sound in which the tongue moves towards a place of articulation, but does not close or nearly close -- the sound is about halfway between a vowel and a consonant in how it is formed. We do not know what place of articulation or which type of approximant (central or lateral) this sound was, nor if it had a rhotic quality (though it may have).

We are highly confident that r₁ was an approximant because it tends to lengthen preceding vowels (/ar₁/ → /a:/), open following vowels (/r₁i/ → /e/), and extend voicing into following consonants (/r₁t/ → /d/). This sound is represented in romanization as <~> to reflect these functions.

r₂

The sound represented by r₂ is strongly believed to have been a back consonant, which may have been a *velar*, *uvular*, or *glottal*. It produced a stronger break in airflow than the other two resonants, possibly being a stop, tap, or trill. We do not know what the manner of articulation was, only that it probably involved some level of complete airflow stopping.

We are confident that r_2 is a back sound because it tends to round adjoining vowels on either side ($/ar_2/ \rightarrow /æ/$, $/r_2i/ \rightarrow /y/$), and that it involved a high degree of stopping because it tends to leave glottal stops between vowels and unpredictable stops after other consonants ($/ar_2i/ \rightarrow /aʔi/$, $/ʃr_2/ \rightarrow /ʃk/$, $/ʃt/$). This sound is represented as <•> in romanization to reflect the syllable-breaking effect of this sound.

r_3

The sound represented by r_3 is strongly believed to have been a lateral, though it is unclear whether it was a fricative or approximant, or where exactly it was formed other than it not being at the back of the mouth. This suggests it was likely between the *alveolar* and *palatal* places, though it could theoretically also be a *dental* sound.

We are confident that r_3 was lateral because it tends to leave other sounds which have a raised tongue position around it: vowels adjacent to it become more closed ($/ar_3/ \rightarrow /ε/$, $/r_3o/ \rightarrow /u/$), preceding consonants tend to become palatalized ($/pr_3/ \rightarrow /pʲ/$), while following consonants become more closed ($/r_3s/ \rightarrow /t/$). Where r_3 occurs between a vowel and a nasal, the vowel tends to become nasalized ($/ar_3m/ \rightarrow /ã/$). This sound is represented as <^> in romanization to reflect the raising effects it leaves behind.

Vowels

This brings us to the vowels, and while there is some debate on how many underlying vowels were present in Mudoran, we currently reconstruct a system of four vowels:

	Front	Central	Back
Close	i		u
Mid			
Open	a		o

This table makes the system look very neat and clean, and while we believe there was wide allophony, we are confident that all four of these vowels **did** have distinct values in Mudoran speech.

 Hypothetical

There is a hypothesis from Ostin that there are only two underlying vowels, a close vowel like /ə/ and an open vowel like /ä/, but this hypothesis is poorly developed and not yet fit for deeper review.

Much like the consonant table, this shows roughly how to shape your tongue in your mouth to produce these vowels.

Front

The body of the tongue is raised forward in the mouth, usually near the hard palate (between the Post-Alveolar and Velar regions discussed above). The lips usually spread for these, as if smiling.

Back

The tongue is bunched up towards the back of the mouth, usually in proximity to the *velum* mentioned above, and the lips are likely to be more rounded, as if sipping or sucking on something.

Close

Close vowels are produced with the tongue high in the mouth and the jaw and lips held tight as if they are almost closed.

Open

Open vowels are produced with the tongue near the bottom of the mouth and jaw and lips relaxed and wide open.

These four vowels also each distinguish length, able to be **short** or **long**. In a rough sense, a short vowel is about $\frac{1}{4}$ of a second while a long vowel is about $\frac{1}{2}$ of a second, though the pace of speech can impact how long these vowels actually are.

Digraphs & Diphthongs

Congratulations: Mudoran is believed to not have any changes to how its letters are pronounced based on the sequence they occur in. While there is some blending of sounds between adjacent vowels, knowing the pronunciations of the letters is all you really need to pronounce any word you can read.

Pronunciation Guide

What follows is a quick guide to how to type, read, and pronounce Mudoran:

Mudoran Consonants for English Speakers

Mudoran IPA	Mudoran Roman	Sample English	Sample IPA
m	m	m other	/mʌð.ɹ/
n	n	n ight	/nait/
p ^h , p	p	p et n ap	/p ^h et/ /næp/
t ^h , t	t	t ell late	/t ^h el/ /let/
k ^h , k	k	k in local	/k ^h ɪn/ /loʊkl/
ʔ	'	uh-oh	/ʌʔoʊ/
f	f	f ill	/fɪl/
s	s	case	/k ^h es/
ʃ	sh	sh are	/ʃeɹ/
x	x	ble ch	/blɛx/
h	h	h ere	/hiɹ/
r ₁	~	---	---
r ₂	•, *	---	---
r ₃	^	---	---

Typing

On Windows, the <•> can be typed by holding The ALT key and typing 0149 on your number pad. On Apple devices with a physical keyboard, you can type it using OPT+8. If you cannot access it, you may use an <*> instead.

It is important to note that in the beginning of words or stressed syllables, the plosives /p, t, k/ maybe be aspirated in Mudoran, a phenomenon that also happens in the vast majority of English speakers. It does not change the meaning of any word to aspirate these sounds or not, so they may both be readily represented by the same letter in romanization.

Mudoran Vowels for English Speakers

Mudoran IPA	Mudoran Roman	Sample English	Sample IPA
a	a	cot	/k ^h at/
i	i	beat	/bit/
o	o	coat	/k ^h out/
u	u	boot	/but/
a:	ā, a:, aa	cod	/k ^h ɑ:d/
i:	ī, i:, ii	bead	/bi:d/
o:	ō, o:, oo	code	/k ^h ou:d/
u:	ū, u:, uu	food	/fu:d/

English does not use vowel length phonemically, so it can be difficult to hear the difference between short and long vowels. Indeed, if you look closely at the table, you might note that all of the Samples of sounds in English contrast between a vowel followed by /t/ and the same vowel followed by /d/ -- this is because English speakers tend to lengthen vowels in front of **voiced** sounds, even though we don't recognize the sound as being any different.

In addition, the above table is slightly inaccurate because it is designed for English speakers in general, and American English to be more specific. Specifically: American English generally doesn't have a clear /a/ sound, all of the highly open vowels blend together a bit in American mouths. Secondly, English speakers widely have diphthongs for certain vowel sounds, and it's hard to find a clear /o/ in English, instead it often comes out as an /ou/.

If you can read the IPA symbols here, we encourage you to model your pronunciations on those rather than the English samples, but in a pinch, the English examples are a better guide than English intuitions.

Writing Mudoran

The tables above summarize the IPA and Romanized symbols for use in typing or writing Mudoran. Most of the letters are very straightforward, though you may need an IPA input method to type some of them. The most important thing when writing Mudoran is that you practice a consistent approach and reliably use the same symbols for the same sounds, but some of our preferences are below:

Resonants

When writing the Mudoran resonants in IPA, we recommend using subscript numerals whenever possible, as r_1 , r_2 , r_3 . If it is not possible, the secondary preference is to use a capitalized R followed by the numeral for the resonant being represented, as R1, R2, R3. Barring that, using the romanized symbols ~, •, and ^ is the fallback option.

Long Vowels

Our standard preference for writing long vowels in romanized Mudoran is to use the underlying vowel with a macron, and our secondary is to use a colon : after the vowel. So long as you aren't mixing multiple approaches, you can also simply write each vowel twice, as in *aa* to indicate the long vowel in romanized text.