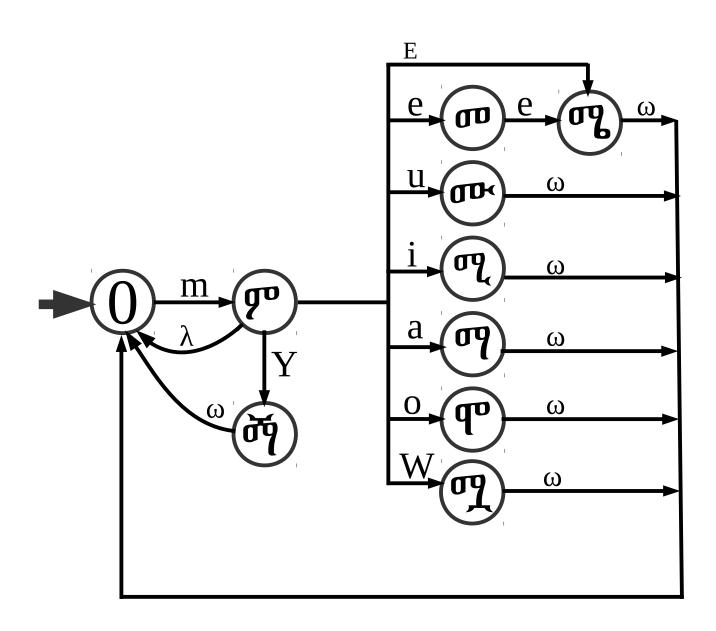
## **CASE INSENSITIVE:**

 $\overline{m = \{b|B, f|F, j|J, l|L, m|M, r|R, v|V, w|W, x|X, y|Y\}}$ 

 $\lambda = \lambda \Lambda$  (any other key)

 $\omega$  = return to state 0 without input

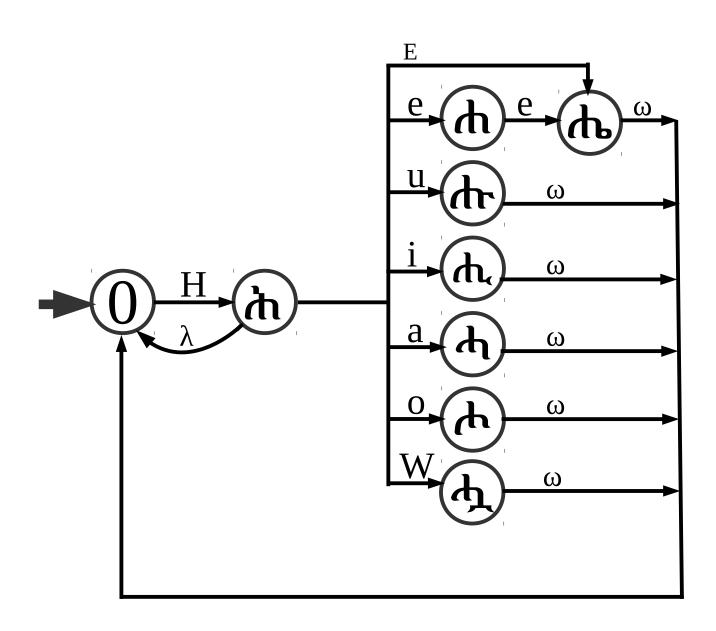
 $(f|F)Y \rightarrow \mathbf{Z} \text{ AND } (m|M)Y \rightarrow \mathbf{V}$ 

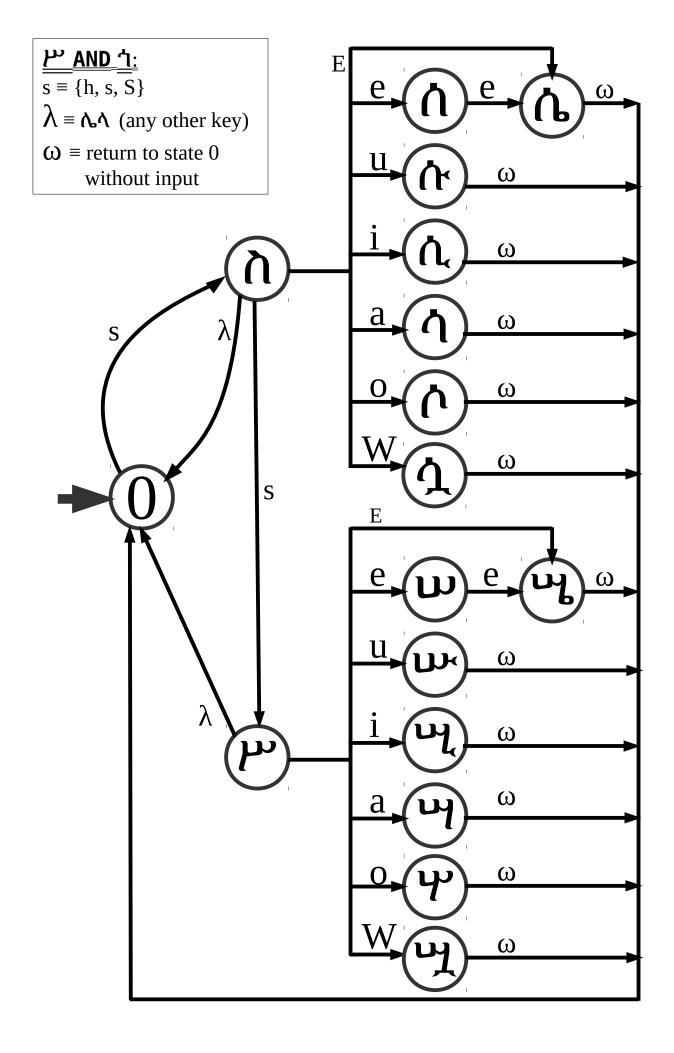


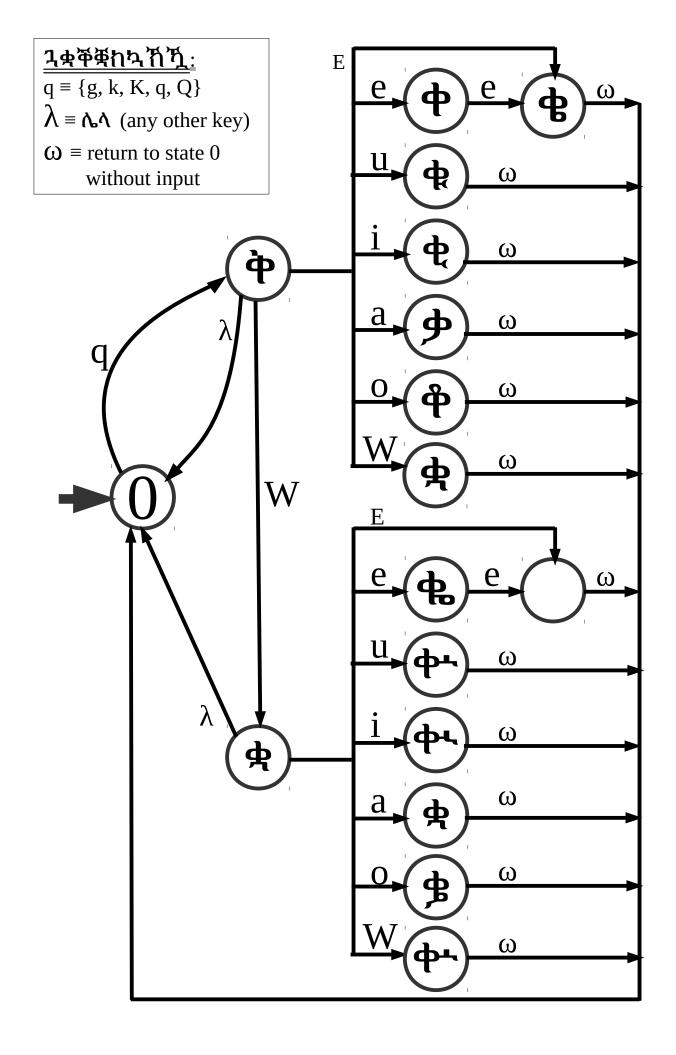
 $\frac{\textbf{CASE SENSITIVE:}}{m \equiv \{c,\,C,\,d,\,D,\,g,\,G,\,H,\,k,\,K,\,n\,\,,\,N,\,p,\,P,\,q,\,Q,\,t,\,T,\,z,\,Z\}}$ 

 $\lambda \equiv \lambda \Lambda$  (any other key)

 $\omega$  = return to state 0 without input







## **CONSONANTS:**

 $\alpha \in A = \{b|B, f|F, j|J, I|L, m|M, r|R, v|V, w|W, x|X, y|Y\}$ 

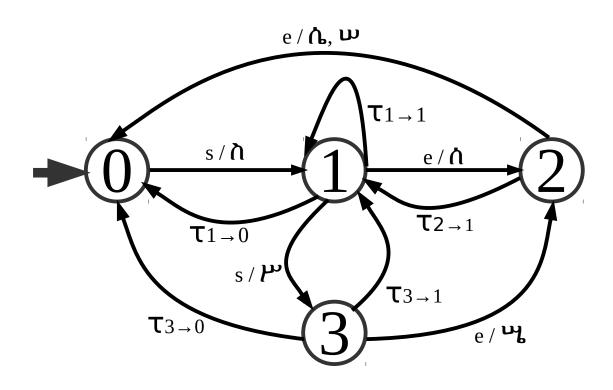
 $\beta \in B = \{c, C, d, D, G, H, n, N, p, P, t, T, z, Z\}$ 

 $\gamma \in C = \{g, k, K, q, Q\}$ 

 $\delta \in D = \{h, s, S\}$ 

 $\lambda \in A \cup B \cup C \cup D$ 

 $\theta = \lambda - \delta \iff \theta \in A \cup B \cup C$ 



## T: STATE TRANSITIONS

 $\tau(current\_state, temp\_output, next\_input) \rightarrow (output, next\_state)$ 

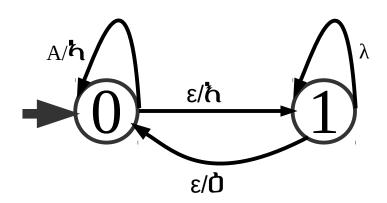
$$\mathsf{T}0 \rightarrow 1 \quad \mathsf{T}1 \rightarrow 0 \quad \mathsf{T}1 \rightarrow 1 \quad \mathsf{T}1 \rightarrow 2 \quad \mathsf{T}1 \rightarrow 3$$

 $T_{2\rightarrow 0}$   $T_{2\rightarrow 1}$ 

$$\tau_{3\rightarrow 0}$$
  $\tau_{3\rightarrow 1}$   $\tau_{3\rightarrow 2}$ 

**VOWELS**:

 $\overline{\epsilon \in \{a, A, e, E, i, o, u\}}$ 



Initial State	Temporary Output	Input	Next State	Output	Action on Output
0	null	а	1	<b>h</b> =anababi(a)	temp_out = a
0	null	е	1	<b>ħ</b> =anababi(e)	temp_out = e
0	null	İ	1	<b>ኪ</b> =anababi(i)	temp_out = i
0	null	0	1	ト=anababi(o)	temp_out = o
0	null	u	1	<b>ሎ</b> =anababi(u)	temp_out = u
0	null	Α	0	<b>h</b> =anababi(A)	temp_out = null
0	null	E	1	<b>ኤ</b> =anababi(E)	temp_out = E

Initial State	Temporary Output	Input	Next State	Output	Action on Output
1	anababi(a)	а	0	9	temp_out = null
1	anababi(a)	е	Θ	0	temp_out = null
1	anababi(e)	a	0	<i>'</i> ჩ	temp_out = null
	anababi(e)	е	Θ	Ò	temp_out = null
1	anababi(E)	E	0	ૡ	temp_out = null
1	anababi(i)	i	0	<b>પ</b>	temp_out = null
1	anababi(o)	0	Θ	?	temp_out = null
1	anababi(u)	u	0	O	temp_out = null
1	anababi(E)	λ	1	$sadis(\lambda)$	temp_out = sadis( $\lambda$ )

Initial State	Temporary Output	Input	Next State	Output	Action on Output
0	null	λ	1	sadis(λ)	temp_out = out
1	sadis(λ)	а	0	rabee(λ)	temp_out = null
1	sadis(λ)	i	0	salis(λ)	temp_out = null
1	sadis(λ)	0	0	sabee(λ)	temp_out = null
1	sadis(λ)	u	0	kaeeb(λ)	temp_out = null
1	sadis(λ)	W	0	z_rabee(λ)	temp_out = null
1	sadis(λ)	Y	0	fia_mia(λ)	temp_out = null
1	sadis(λ)	Е	0	hamis(λ)	temp_out = null
1	sadis(λ)	е	2	geez(λ)	temp_out = out
1	$sadis(\lambda_{_{1}})$	$\lambda_2$	1	$sadis(\lambda_2)$	temp_out = out
1	sadis(δ)	λ≠δ	1	sadis(λ)	temp_out = out
1	sadis(δ)	δ	3	sadis( $\delta^2$ )	temp_out = out
1	sadis(γ)	W	3	sadis(γW)	temp_out = out
2	geez(λ)	е	0	hamis(λ)	temp_out = null
2	$geez(\lambda_1)$	$\lambda_2$	1	$sadis(\lambda_2)$	temp_out = out

Initial State	Temporary Output	Input	Next State	Output	Action on Output
3	sadis(δ²)	λ	1	sadis(λ)	temp_out = out
3	sadis(γW)	λ	1	sadis(λ)	temp_out = out
3	sadis(λ)	а	0	rabee(λ)	temp_out = null
3	sadis(λ)	i	0	salis(λ)	temp_out = null
3	sadis(λ)	0	0	sabee(λ)	temp_out = null
3	sadis(λ)	u	0	kaeeb(λ)	temp_out = null
3	sadis(λ)	W	0	z_rabee(λ)	temp_out = null
3	sadis(λ)	Y	0	fia_mia(λ)	temp_out = null
3	sadis(λ)	E	0	hamis(λ)	temp_out = null
3	sadis(λ)	е	2	geez(λ)	temp_out = out