Supplemental Table 1. Neuroglancer links to MNs by motor module

Cove			
<u>Coxa swing</u>	Coxa swing		
Coxa stance	Coxa stance		
Femur/Tr exten	р		
Femur/Tr flex			
Femur reducto	<u>r</u>		
Tibia extend			
Tibia flex A			
Tibia flex B			
Tibia flex C			
Substrate grip	Substrate grip		
Tarsus contro			
Longitudinal			
Ventromedial			
Tension			
Steering A			
Steering B			
Steering C			
Steering D			

Supplemental Table 2. Neuroglancer links to premotor neurons by preferred module and cell class.

Preferred Module (Leg)	Local	Intersegmental	Ascending	Sensory	Descending
Coxa swing	local coxa swing	interseg coxa swing	ascending coxa swing	sensory coxa swing	descending coxa swing
Coxa stance	local coxa stance	interseg coxa stance	ascending coxa stance	sensory coxa stance	descending coxa stance
Trochanter extend	local troch extend	interseg troch extend	asc trochanter extend	sensory troch extend	desc trochanter extend
Trochanter flex	local trochanter flex	interseg troch flex	asc trochanter flex	sensory trochanter flex	desc trochanter flex
Femur reductor	local femur reductor	interseg fe reductor	asc femur reductor	sensory femur reductor	desc femur reductor
Tibia extend	local tibia_extend	interseg tibia extend	ascending tibia extend	sensory tibia extend	descending tibia extend
Tibia flex A	local tibia flex A	interseg tibia flex A	ascending tibia flex A	sensory tibia flex A	descending tibia flex A
Tibia flex B	local tibia flex B	interseg tibia flex B	ascending tibia flex B	sensory tibia flex B	descending tibia flex B
Tibia flex C	local tibia flex C	interseg tibia flex C	ascending tibia flex C	sensory tibia flex C	descending tibia flex C
Substrate grip	local substrate grip	interseg_substrate_grip	asc substrate grip	sensory substrate grip	desc substrate grip
Tarsus control	local tarsus control	interseg tarsus control	asc tarsus control	sensory tarsus control	desc tarsus control

Preferred Module (Wing)	Local	Intersegmental	Ascending	Sensory	Descending
DLM	local_DLM	local intersegmental DLM	ascending_DLM	sensory_DLM	descending_DLM
DVM	local DVM	local intersegmental DVM	ascending DVM	sensory DVM	descending DVM
Tension	local_tension	local intersegmental tension	ascending tension	sensory tension	descending tension
Steering A	local steerA	local intersegmental steerA	ascending steerA	sensory steerA	descending steerA
Steering B	local_steerB	local intersegmental steerB	ascending_steerB	sensory_steerB	descending_steerB
Steering C	local_steerC	local intersegmental steerC	ascending_steerC	sensory_steerC	descending_steerC
hg2	local steerhg2	local intersegmental steerhg2	ascending steerhg2	sensory steerhg2	descending steerhg2
Steering D	local_steerD	local intersegmental steerD	ascending_steerD	sensory_steerD	descending_steerD

Supplemental Table 3. Neuroglancer links to local and intersegmental premotor neurons by hemilineage

	<u>13A</u>
	<u>9A</u>
	<u>13B</u>
īgic	<u>6B</u>
GABAergic	<u>5B</u>
зАЕ	<u>3B</u>
9	<u>6A</u>
	<u>0A</u>
	<u>11B</u>
<u>.0</u>	<u>11B</u> <u>14A</u>
Glutamatergic	<u>21A</u>
mat	21A 8A
luta	<u>16</u>
Ö	<u>2A</u>
	<u>22A</u>
	<u>3A</u>
	<u>4B</u>
	<u>20A</u>
	<u>1A</u>
Cholinergic	<u>1A</u> <u>23B</u>
line	<u>11A</u>
Cho	<u>18B</u>
O	<u>7B</u>
	<u>19B</u>
	<u>12A</u>
	<u>8B</u>
	<u>17A</u>