Assembler instructions for the core

Registers X, Y, Z refer to any of the 16 registers (unless otherwise specified in notes).

name	opcode	instruction syntax	type	instruction	supported	notes
load data	0x1	loaa regX	w x x	regX = data_from_bus_A	V	
	0x2	loab regX	w x x	regX = data_from_bus_B	V	
	0x3	loaab regX, regY	w w x	regX = data_from_bus_A regY = data_from_bus_B	V	
unl data	0x4	unl regX	r x x	data_bus = regX	V	
set reg to 0	0x5	set0 regX	w x x	regX = 0	-	
set reg to 1	0x6	set1 regX	w x x	regX = 1	-	
sign 2 step	0x7	s2s regX, regY	r w	regY = 1 when regX<0 else 0;	-	
multiplication	0x8	mutl regX, regY, regZ	r r w	regZ = regX * regY	V	destination reg has to be different from the source registers
add	0x9	add regX, regY, regZ	r r w	regZ = regX + regY	V	
sub	0xA	sub regX, regY, regZ	r r w	regZ = regX - regY	V	
copy reg	0xB	cpy regX, regY	r w x	regY = regX	-	
shl	0xC	shl regX, regY, regZ	r r w	regZ = regX << regY	-	No limits on regZ selection.
shr	0xD	shr regX, regY, regZ	r r w	regZ = regX >> regY	-	No limits on regZ selection.
si	0xE	si regX	w	regX = -regX	-	