

Chip 8 Cheat Sheet

Setting I register	
Annn	I = nnn
fx1E	I = I + vX

Setting V registers	
6xkk	vX = kk
7xkk	vX += kk
8xy0	vX = vY

Manipulating V registers	
8xy1	vX = vX vY
8xy2	vX = vX & vY
8xy3	vX = vX ^ vY
8xy4	vX = vX + vY : vF = carry
8xy5	vX - vX - vY : vF = not borrow
8xy6	vX = SHR vX : vF = lsb
8xy7	vX = vY - vX : vF = not borrow
8xyE	vX = SHL vX : vF = msb

Reading and storing V registers in Memory	
Fx55	v0 to vX is stored in memory starting at I
Fx65	V0 to vX is read from memory starting at I

Delay Timer	
Fx07	vX = dt
Fx15	dt = vX

Sound Timer	
Fx18	st = vX

Jumping / Routines	
2nnn	Call nnn
00EE	Return subroutine
1nnn	Jump to nnn
Bnnn	Jump to nnn + v0

Skipping	
3xkk	Skip next if vX = kk
4xkk	Skip next if vX != kk
5xy0	Skip next if vX = vY
9xy0	Skip next if vX != vY

Keyboard input	
Ex9E	Skip if vX = key
ExA1	Skip if vX != key
Fx0A	Wait until key - store in vX

Drawing	
00E0	Clear display
Dxyn	Display n-byte sprite @ x y
Fx29	I = sprite for digit vX

Random	
Cxkk	vX = RAND & kk

BCD	
Fx33	BCD of vX is stored in memory I, I+1 and I+3