



FIGnition inFUZE Hardware Specification

Processor	20MHz Atmel ATmega328 pre-programmed with FIGnition FORTH
Flash Memory	512KB (Expandable to 1MB) pre-loaded with utilities & games
RAM Memory	8KB (Expandable to 32KB)
Character Set	128 ASCII characters in true and inverse video
Display (Text)	25 x 24 Monochrome Text mode + 16 User-Defined Characters
Graphics	160 x 160 Bitmap Graphics mode with Sprite Engine
Video Format	Composite video, PAL/NTSC
Sound	Single-channel audio In/Out with hardware-assisted sound
Programming	FIGnition FORTH language with 200 built-in commands
Performance	70,000 to 400,000 FORTH Instructions / Sec
User Interface	On-board 8-key keypad
Board Size	71 x 52mm
Power Supply	+5V via USB-B Connector
Extension	Optional Arduino™ Shield-compatible connectors



FIGnition FORTH Quick Reference Guide

Arithmetic / Logic			
and	or	xor	<<
>>	+	-	d+
neg	dneg	u*	u/
1+	1-	*	2+
2*	-1	+-	d+-
abs	dabs	min	max
m*	*/mod	*/	m/
/mod	/	mod	m/mod

Parameter Stack Operations			
over	drop	swap	dup
?dup	rot	2dup	s->d

Control Flow		
do .. loop/+loop	leave	i and i'
begin .. until	begin .. while .. repeat	
if .. else .. then	exec	;s

Memory and I/O			
@	c@	!	c!
cmove	fill	ic@	ic!
i@	i!	>port>	spi
+			

Data			
var	const	allot	,
c,	arr	bytes	

Comparison			
0=	0<	u<	<
>	=		

Number Conversion			
base	hld	tib	in
hex	decimal	digit	number
hold	pad	<#	#>
sign	#	#s	

User Interface			
emit	at	.hex	key
inkey	cls	cr	type
space	spaces	".	."
pause	d.r	d.	.r
.	?	more	at>
clBox			

Compiler			
[compile]	literal	state	here
lfa>cfa	lfa>ffa	lfa>nfa	latest
?comp	?pairs	:	?error
immediate	x,	compile	;
[]	smudge	create
<builds	does>	(

Graphics			
plot	tile	blt	2blt
blts	clip	pen	vmode

Storage			
blk>	>blk	blk#	load
loads	cp	edit	

Text Processing			
"	bl	tib	in
cln"	"len	"skipBl	boxed
word	"<>	asc	"!
"+	"cut	"from	query

Locals			
locs	loc;	>	>l

Dictionary			
find	vlist	forget	

System			
kern	vram	clock	sysvars
sf	rp	sp	sp0
warning	dp	current	abort
quit	cold		

Interpreter			
enclose	"run	interpret	

Return Stack Operations			
r	>r	r>	

