duckyScript Cheatsheet: Key Combos

Latest Resources

- duckyPad Homepage
- duckyScript Full Doc
- Autoswitcher
- Syntax Highlighter
- Discord Chatroom

Key Combos

- Easiest to Write
- For Shortcuts & Hotkeys
- Any Combo of:
- Special Keys / Letters / Numbers

```
ENTER

CTRL s

COMMAND SHIFT 4
```

Type **Key Name** in **ALL CAPS**

Available Special Keys

```
CTRL / RCTRL                |     (media keys)
SHIFT / RSHIFT              |     MK_VOLUP
ALT / RALT                  |     MK_VOLDOWN
WINDOWS / RWINDOWS          |     MK_MUTE
COMMAND / RCOMMAND          |     MK_PREV
OPTION / ROPTION            |     MK_NEXT
ESC                         |     MK_PP (play/pause)
ENTER                       |     MK_STOP
UP/DOWN/LEFT/RIGHT          |
SPACE                       |     (numpad keys)
BACKSPACE                   |     NUMLOCK
TAB                         |     KP_SLASH
CAPSLOCK                    |     KP_ASTERISK
PRINTSCREEN                 |     KP_MINUS
SCROLLLOCK                  |     KP_PLUS
PAUSE                       |     KP_ENTER
BREAK                       |     KP_0 - KP_9
INSERT                      |     KP_DOT
HOME                        |     KP_EQUAL
PAGEUP / PAGEDOWN           |
DELETE                      |     (Japanese IME)
END                         |     ZENKAKUHANKAKU
MENU                        |     HENKAN
POWER                       |     MUHENKAN
F1 - F24                    |     KATAKANAHIRAGANA
```

duckyScript Commands

Typing

STRING text	Type text AS-IS
STRINGLN text	Type text AS-IS Press ENTER at end
STRING_BLOCK END_STRING	Type text block AS-IS No new lines
STRINGLN_BLOCK END_STRINGLN	Same as above Press ENTER after each line

Timing

DELAY n	Wait n Milliseconds
DEFAULTDELAY n	How long to wait between each non-letter keypresses
DEFAULTCHARDELAY n	How long to wait between typing each letter
CHARJITTER n	Additional random delay between 0 and n ms after typing each letter

Mouse

LMOUSE MMOUSE RMOUSE FMOUSE BMOUSE	Left / Middle / Right Forward / Backward Mouse Button Click
MOUSE_MOVE x y	Move Mouse in Pixels x: + Right - Left y: + Up - Down
MOUSE_SCROLL h v	Scroll horizontal h lines vertical v lines

OLED

OLED_CLEAR	Clear Screen
OLED_CURSOR x y	Set Cursor x y: 0 to 127 (0,0) = Top Left
OLED_PRINT text	Print Text at Current Cursor
OLED_CPRINT text	Print Text **Center-Aligned**
OLED_CIRCLE x y radius fill	x y: Position radius: In Pixels fill: 0 or 1
OLED_LINE x1 y1 x2 y2	x1 y1: Start x2 y2: End
OLED_RECT x1 y1 x2 y2 fill	x1 y1: Start x2 y2: End fill: 0 or 1
OLED_UPDATE	Commit Changes to Screen
OLED_RESTORE	Show Default Screen

RGB Backlight

SWC_SET n r g b	Change RGB Colour n: Key ID (0 for current key) r g b: 0 to 255
SWC_FILL r g b	Change ALL RGB r g b: 0 to 255
SWC_RESET n	Reset RGB to Default n: Key ID 0 = Current Key 99 = All keys

Pressing Keys

Key Combos	See Page 1
KEYDOWN key	Hold key
KEYUP key	Release Key
key can be letter, number, or special key.	

Profile Switching

PREV_PROFILE	NEXT_PROFILE
GOTO_PROFILE name	Case sensitive
Also check out duckyPad Autoswitcher	

Miscellaneous

DP_SLEEP	RGB & Screen OFF Halts Execution
HALT	Halt Execution
REPEAT n	Repeat **line above** n times

Comments

//
REM_BLOCK END_REM

Random Letters

Type a random character

```
RANDOM_LOWERCASE_LETTER
RANDOM_NUMBER
RANDOM_UPPERCASE_LETTER
RANDOM_SPECIAL
RANDOM_LETTER
RANDOM_CHAR
```

duckyScript: Advanced Usage

Constants

DEFINE	Define a Constant

Replaced AS-IS during preprocessing

```
DEFINE EMAIL bob@me.com
```

Variables

VAR	Declare Signed 32-bit Variable

```
VAR foo = 10
```

Persistent Global Variables

_GV0 to _GV31

- Available across all profiles
- Persists over reboots

Operators (Signed)

= Assign	== Equal	&& Logical AND
+ Add	!= Not equal	|| Logical OR
- Subtract	> Greater than	! Logical NOT
* Multiply	< Less than	& Bitwise AND
/ Divide	>= GTE	| Bitwise OR
% Modulus	<= LTE	^ Bitwise XOR
** Exponent		<< Left Shift
		>> Right Shift

Augmented Assignments: +=, *=, etc

Operators (Unsigned)

```
ULT(lhs, rhs)    UGTE(lhs, rhs)
ULTE(lhs, rhs)   UDIV(val, n)
UGT(lhs, rhs)    UMOD(val, n)
LSR(val, n)
```

IF Statement

Code inside is executed
If expression is non-zero

```
IF expression
    code
END_IF
```

Additional Checks	ELSE IF
	ELSE

WHILE loop

Code inside is repeated
If expression is non-zero

```
WHILE expression
    code
END_WHILE
```

Jump to start	CONTINUE
Exit immediately	LBREAK

Functions

```
FUN my_func(args)
    code=
END_FUN

my_func() // call it
```

Optional args & returns

VARs declared inside have local scope

Randomisation

```
VAR foo = RANDINT(lower, upper)
```

Unsigned: RANDUINT(lower, upper)

Range is **inclusive**

Reading Keys

Blocking	VAR key = _BLOCKING_READKEY
	Wait until any keypress, returns KeyID
Non-Blocking	VAR key = _READKEY
	0 if no key pressed, KeyID otherwise
Bitfield	VAR key = _SW_BITFIELD
	Each bit: 1 = Pressed, 0 = Released

Real-time Clock

Automatically set when using Autoswitcher

Check _RTC_IS_VALID first.
Do not proceed if 0.

_RTC_YEAR	_RTC_MINUTE
_RTC_MONTH	_RTC_SECOND
_RTC_DAY	_RTC_WDAY
_RTC_HOUR	_RTC_YDAY

VAR Print & Formatting

```
VAR foo = 10
STRING Value is $foo
```

Format Specifiers: Add **immediately after** var name	%d: Signed Decimal %u: Unsigned Decimal %x: Hex Lower %X: Hex Upper
Zero-Pad	%02d, %04x, etc
Space-Pad	%2d, %4x, etc

duckyScript: Advanced Usage

duckyPad Standard Library

Additional Helper Functions

Add `USE_STDLIB` to include

Click for details

User Headers

Click “`Edit Header`” Button

Write your own header

Add `USE_UH` to include

Built-in Functions

Low-level Operations

See Full Guide for details

`RANDCHR(value)`	`RANDINT(lower, upper)`
`PUTS(value)`	`HIDTX(addr)`

Memory Access

Read Signed	`PEEK8(addr)`
	`PEEK16() PEEK32()`

Read Unsigned	`PEEKU8(addr)`
	`PEEKU16(addr)`

Write	`POKE8(addr,val)`
	`POKE16() POKE32()`

For use in Scratch Memory Area

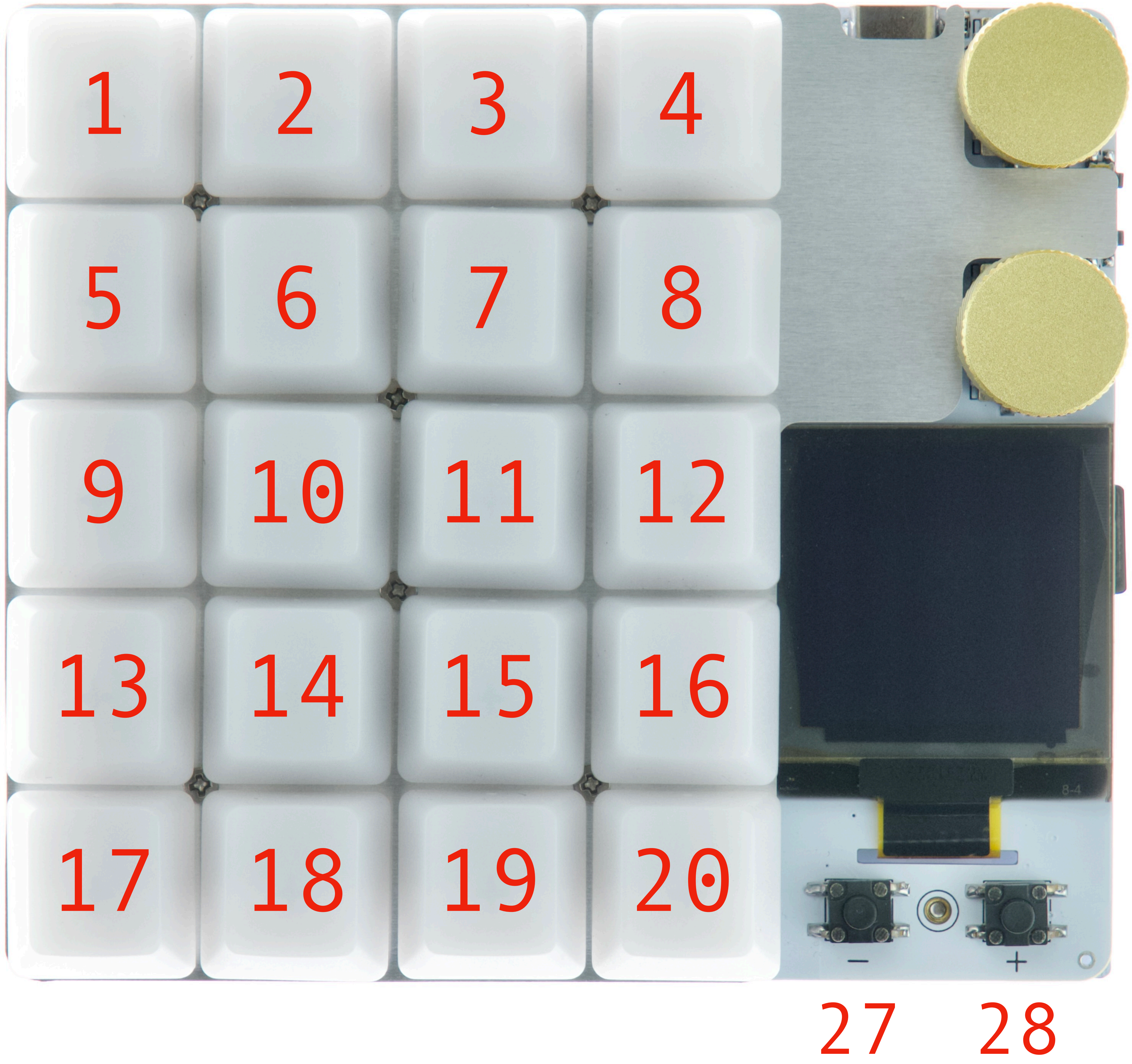
Learn more about duckStack VM

Reserved Variables

`_TIME_S`	RO	Elapsed time since power-on
`_TIME_MS`		
`_BLOCKING_READKEY`	RO	See “Reading Inputs”
`_READKEY`		
`_SW_BITFIELD`		
`_KBLED_BITFIELD`	RO	Keyboard LED Status
`_IS_NUMLOCK_ON`	RO	0: LED OFF 1: LED ON
`_IS_CAPSLOCK_ON`		
`_IS_SCROLLLOCK_ON`		
`_ALLOW_ABORT`	RW	0: Enable 1: Disable
`_DONT_REPEAT`		
`_THIS_KEYID`	RO	See “Key ID”
`_DP_MODEL`	RO	1: duckyPad, 2: duckyPad Pro
`_KEYPRESS_COUNT`	RO	
`_RTC_IS_VALID`	RO	Check this first before reading RTC
`_RTC_YEAR`		4 Digits, e.g. 2025
`_RTC_MONTH`		1 - 12
`_RTC_DAY`		1 - 31
`_RTC_HOUR`		0 - 23
`_RTC_MINUTE`		0 - 59
`_RTC_SECOND`		0 - 60
`_RTC_WDAY`		Day of Week, 0 = Sunday
`_RTC_YDAY`		Day of Year, 0 - 365
`_RTC_UTC_OFFSET`	RW	In Minutes

Key IDs: duckyPad Pro

- Each key on duckyPad has a **unique ID**
- Used for **reading button status** and changing RGB colour



Rotary Enoder	Clockwise	Counter Clockwise	Press
Upper	21	22	23
Lower	24	25	26

Expansion Module	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Closest to duckyPad	37	38	39	40	41	42	43	44
2nd Closest	45	46	47	48	49	50	51	52
etc.								

Key IDs: duckyPad (2020)