duckyScript: Key Combos

Latest Docs

- [duckyPad User Manual](#)

- [duckyScript Instructions](#)

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	Same as above Press ENTER at end
STRING_BLOCK END_STRING	Type text block AS-IS
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 line of code
DEFAULTCHARDELAY n	How long to wait between each letter
CHARJITTER n	Additional random delay between 0 and n ms after each letter

Mouse

LMOUSE	Left Click
MMOUSE	Middle Click
RMOUSE	Right Click
MOUSE_MOVE x y	Move Mouse in Pixels x: + Right - Left y: + Up - Down
MOUSE_WHEEL n	Scroll n lines + Up - Down

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_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	Draw Rectangle x1 y1: Start x2 y2: End fill: 0 or 1
OLED_UPDATE	Call This to See Changes on Screen!
OLED_RESTORE	Show Default Screen

RGB Backlight

SWC_SET n r g b	Change RGB Colour n: Key ID (0 for current switch) 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
//
REM_BLOCK END_REM

duckyScript: Advanced Usage

Constants

DEFINE	Define a Constant

Replaced AS-IS during preprocessing

```
DEFINE MY_EMAIL bob@me.com
STRING My email is MY_EMAIL!
```

Variables

VAR	Declare a Variable
Starts with $	Global scope
16-bit integer	Can be printed

```
VAR $count = 10
STRING I have $count eggs
```

Operators

Perform on Constants and Variables

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

Randomisation

```
$_RANDOM_MIN = 0
$_RANDOM_MAX = 100
VAR $eggs = $_RANDOM_INT
```

Range is **inclusive**

IF Statements

Code inside is executed
If expression is non-zero

```
IF expression THEN
    code
END_IF
```

Multiple Checks	ELSE IF … THEN
	ELSE

WHILE loops

Code inside is repeated
If expression is non-zero

```
WHILE expression
    code
END_WHILE
```

Jump to start of loop	CONTINUE
Exit loop immediately	LBREAK

Functions

Run block of code efficiently

```
FUNCTION my_func()
    code
END_FUNCTION


my_func() // call it
```

Use global variable for args & returns

Persistent Global Variables

$_GV0 to $_GV31

- Available across all profiles
- Persists over reboots

Reading Buttons: Blocking

VAR $this_k = $_BLOCKING_READKEY

Waits until a key is pressed, returns its ID

Reading Buttons: Non-Blocking

VAR $this_k = $_READKEY

Returns 0 if no key pressed, KeyID otherwise

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

Print Formatting

Set Before Printing Numbers in
STRING, STRINGLN, OLED_PRINT

$_STR_PRINT_FORMAT	0: Decimal Unsigned
	1: Decimal Signed
	2: Hex Lower
	3: Hex Upper
$_STR_PRINT_PADDING	Add Leading Zeros
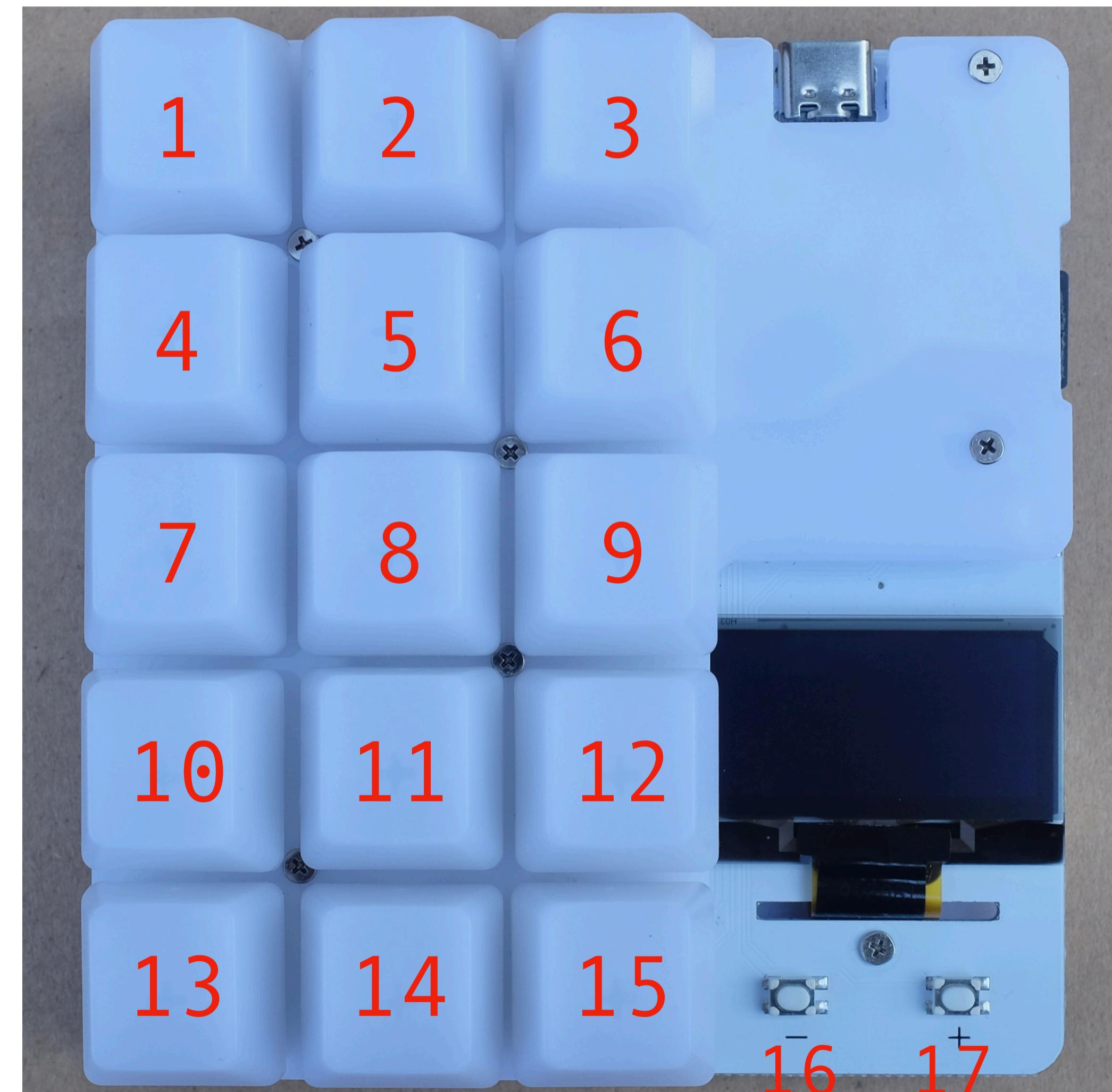
Reserved Variables		
$_RANDOM_MIN	RW	See "Randomisation"
$_RANDOM_MAX		
$_RANDOM_INT	RO	
$_TIME_S	RO	Elapsed time since power-on
$_TIME_MS		
$_READKEY	RO	See "Reading Inputs"
$_BLOCKING_READKEY		
$_IS_NUMLOCK_ON	RO	0: LED OFF
$_IS_CAPSLOCK_ON		
$_IS_SCROLLLOCK_ON		1: LED ON
$_ALLOW_ABORT	RW	0: Enable
$_DONT_REPEAT		1: Disable
$_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
$_STR_PRINT_FORMAT	RW	See "Print Formatting"
$_STR_PRINT_PADDING	RW	
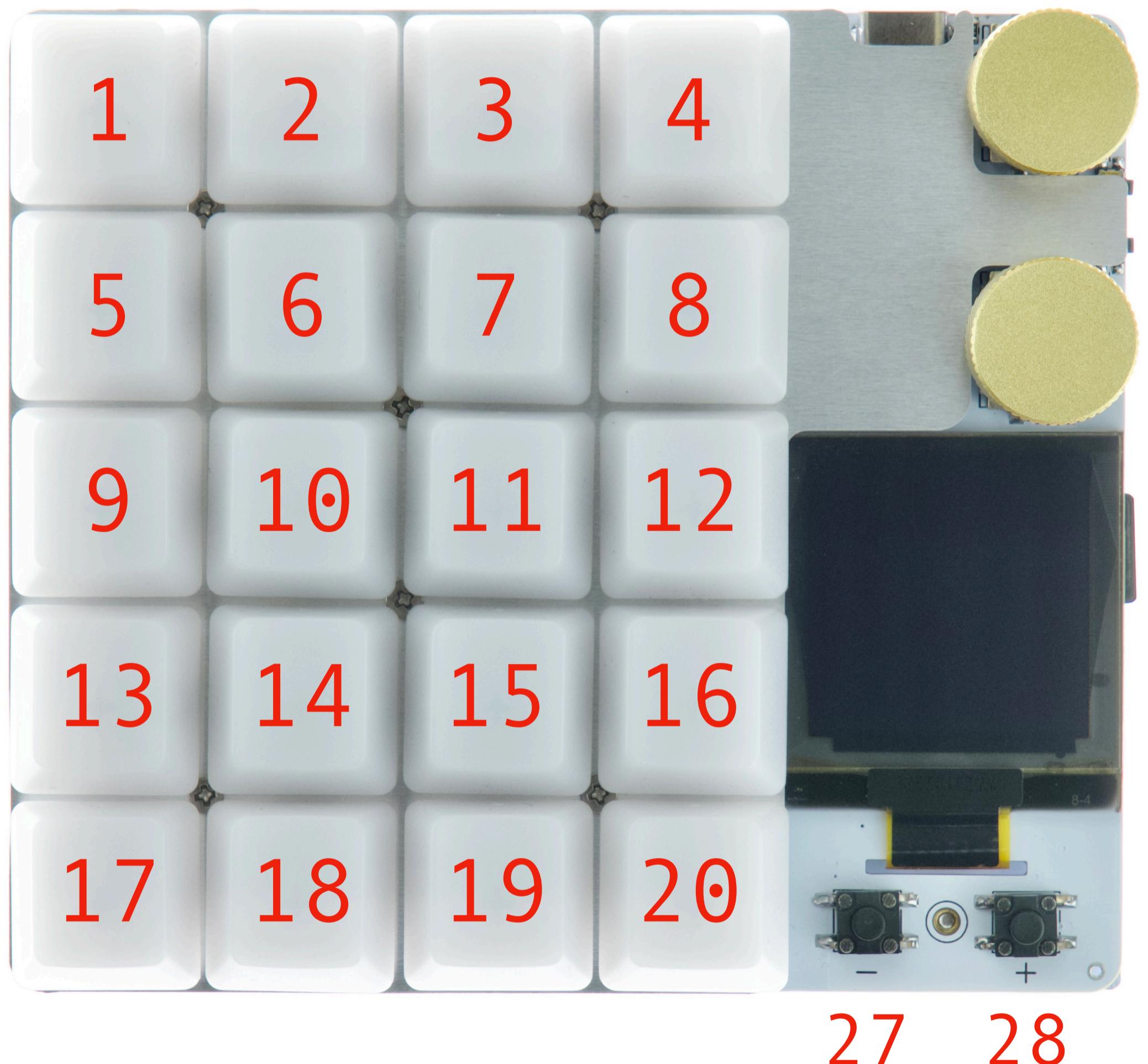
Key IDs: duckyPad (2020)

- Each key on duckyPad has a **unique ID**

- Used for **reading button status** and changing RGB colour

- Key Test sample script provided

Key IDs: duckyPad Pro

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.								