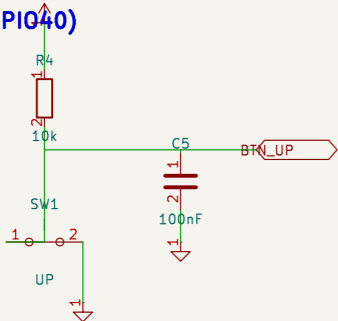# CONTROLS — 12 Tact Switches
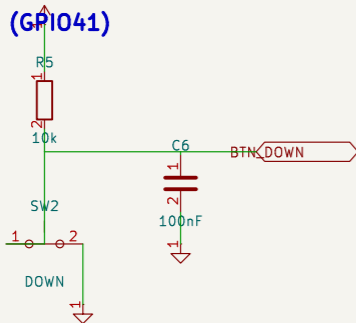
Active-low with 10k pull-up + 100nF debounce per button

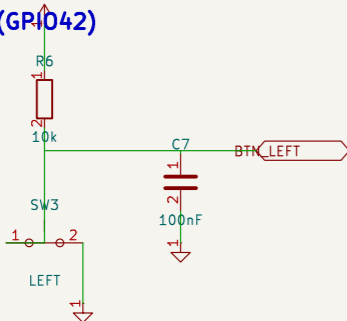## D-PAD

UP (GPIO40)
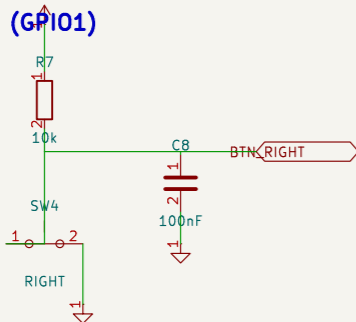
R4 10k
C5 100nF
BTN_UP
SW1
UP

DOWN (GPIO41)

R5 10k
C6 100nF
BTN_DOWN
SW2
DOWN

LEFT (GPIO42)

R6 10k
C7 100nF
BTN_LEFT
SW3
LEFT

RIGHT (GPIO1)

R7 10k
C8 100nF
BTN_RIGHT
SW4
RIGHT

FACE BUTTONS (ABXY)

A (GPIO2)

R8 10k
C9 100nF
BTN_A
SW5
A

B (GPIO48)

R9 10k
C10 100nF
BTN_B
SW6
B

X (GPIO47)

R10 10k
C11 100nF
BTN_X
SW7
X

Y (GPIO21)

R11 10k
C12 100nF
BTN_Y
SW8
Y
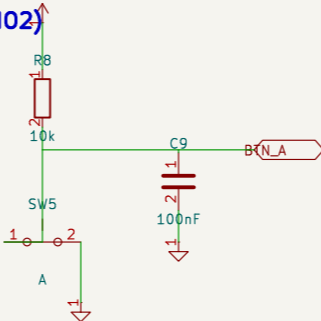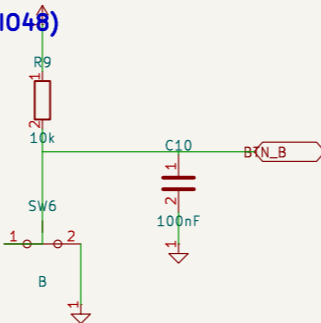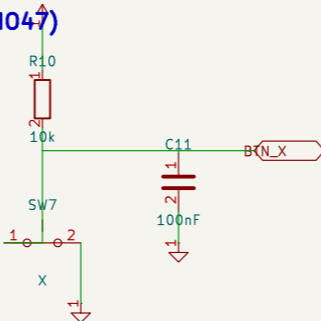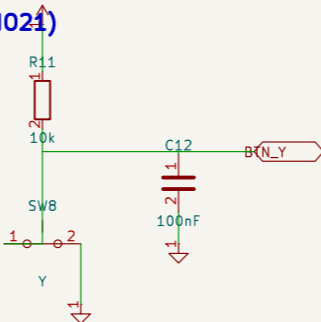
SYSTEM + SHOULDER

START (GPIO18)
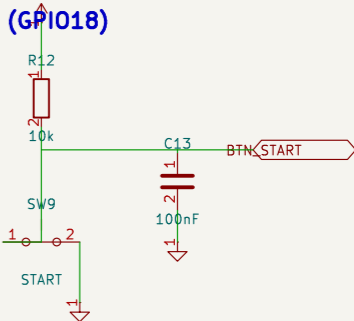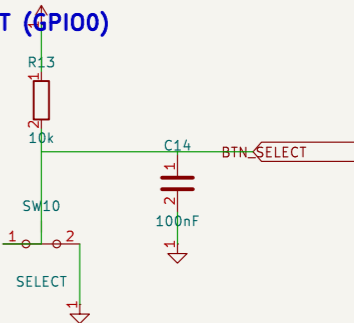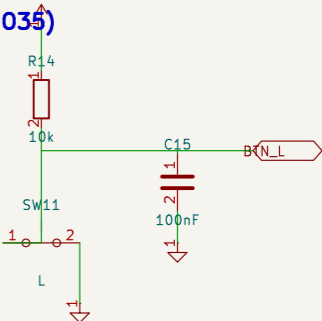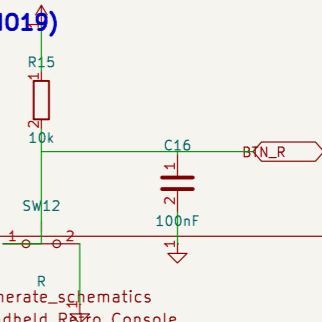
R12 10k
C13 100nF
BTN_START
SW9
START

SELECT (GPIO0)

R13 10k
C14 100nF
BTN_SELECT
SW10
SELECT

L (GPIO35)

R14 10k
C15 100nF
BTN_L
SW11
L

R (GPIO19)

R15 10k
C16 100nF
BTN_R
SW12
R

BUTTON CIRCUIT (repeated 12x):