

FPGA Password Lock – Button Sequence Cheat Card

Button Functions

Button	Name	Function
BTN0	TOGGLE	Flip current bit ($0 \leftrightarrow 1$)
BTN1	ENTER	Start / Finish password entry
BTN2	NEXT	Move to next bit
BTN3	RESET	Reset to LOCKED state

Universal Rule

Password bits are entered in order: **Bit 0 → Bit 1 → Bit 2**

- If the bit is **1**: press **TOGGLE**
- If the bit is **0**: do nothing
- Press **NEXT** to move forward (except after last bit)
- Finish with **ENTER**

General Button Pattern

ENTER

(Bit 0) → TOGGLE if needed → NEXT
(Bit 1) → TOGGLE if needed → NEXT
(Bit 2) → TOGGLE if needed

ENTER

Examples

Password	Button Sequence
101	ENTER → TOGGLE → NEXT → NEXT → TOGGLE → ENTER
010	ENTER → NEXT → TOGGLE → NEXT → ENTER
111	ENTER → TOGGLE → NEXT → TOGGLE → NEXT → TOGGLE → ENTER
000	ENTER → NEXT → NEXT → ENTER

LED Meanings

- RED – Locked
- BLUE – Entering / Error
- GREEN – Unlocked