Microswitch
GPIO21, INPUT_PULLUP
(lever closes to GND)

GPIO21 (INPUT_PULLUP)
contact→GND

ESP32 DevKitC

Debounce (40 ms)

Logic Mapping
CLOSED=LOW, OPEN=HIGH

Serial 115200

2.4 GHz Wi-Fi (STA)

Home Router / AP
(DHCP or Static IP)

HTTP GET / /status

Local Website (HTTP server on ESP32)
/ → UI, /status → Locked/Unlock

UI in browser

Phone (Browser / Cloud App)

MQTT / REST

Arduino IoT Cloud
(isLocked, lockText)

Cloud Dashboard

GPIO2 — Visual indication

LED — GPIO2
Visual Indicator