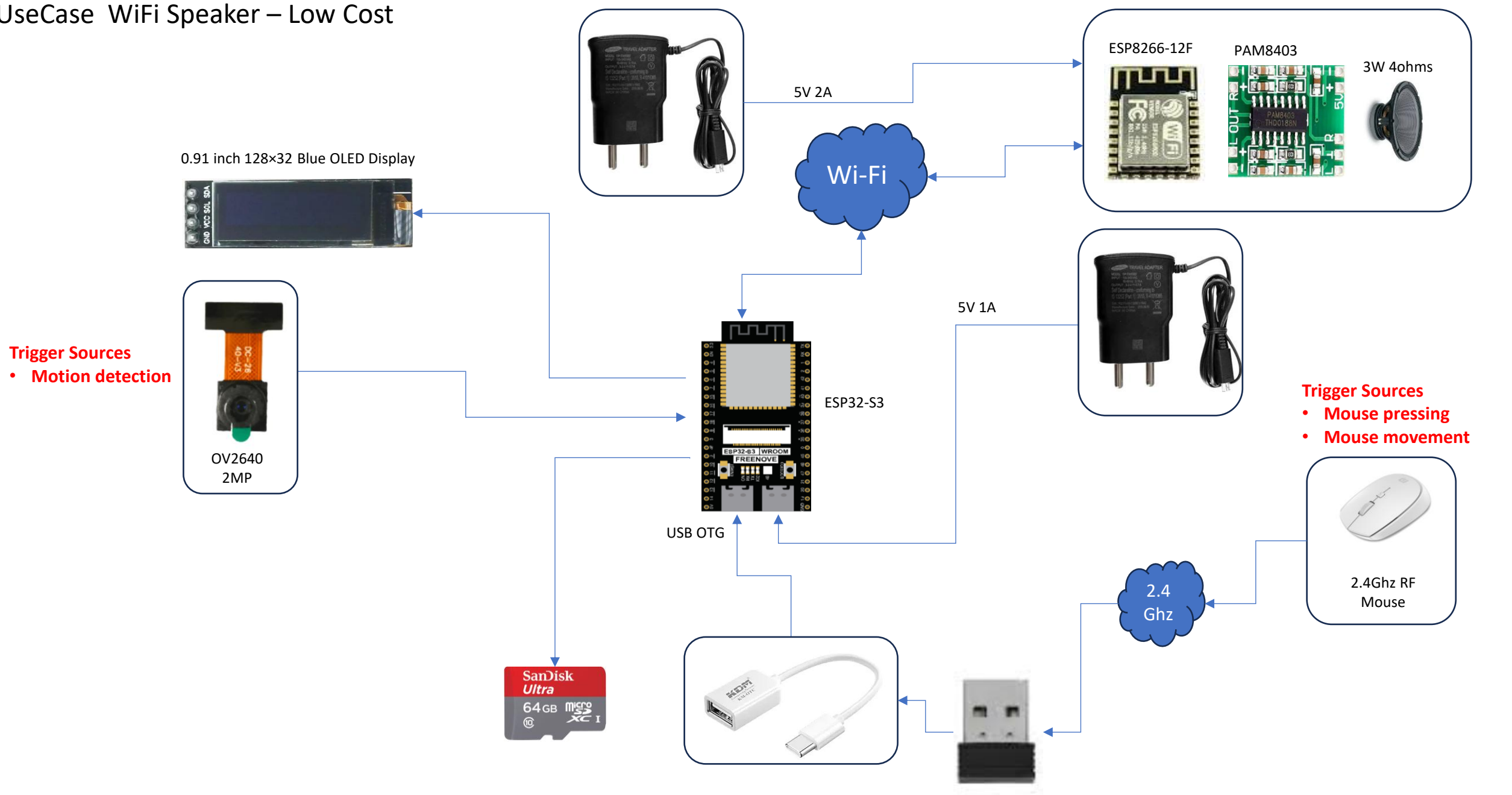
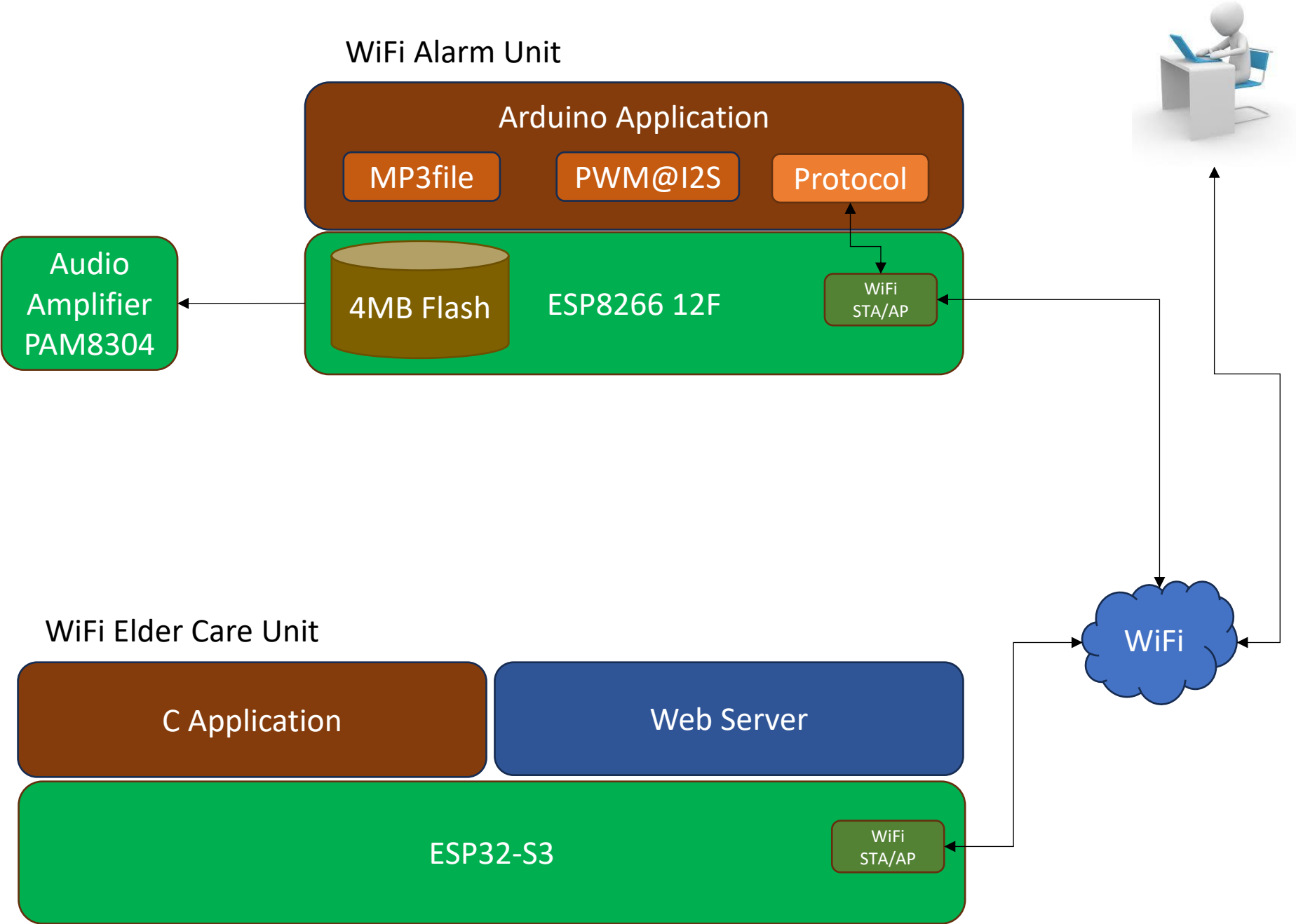


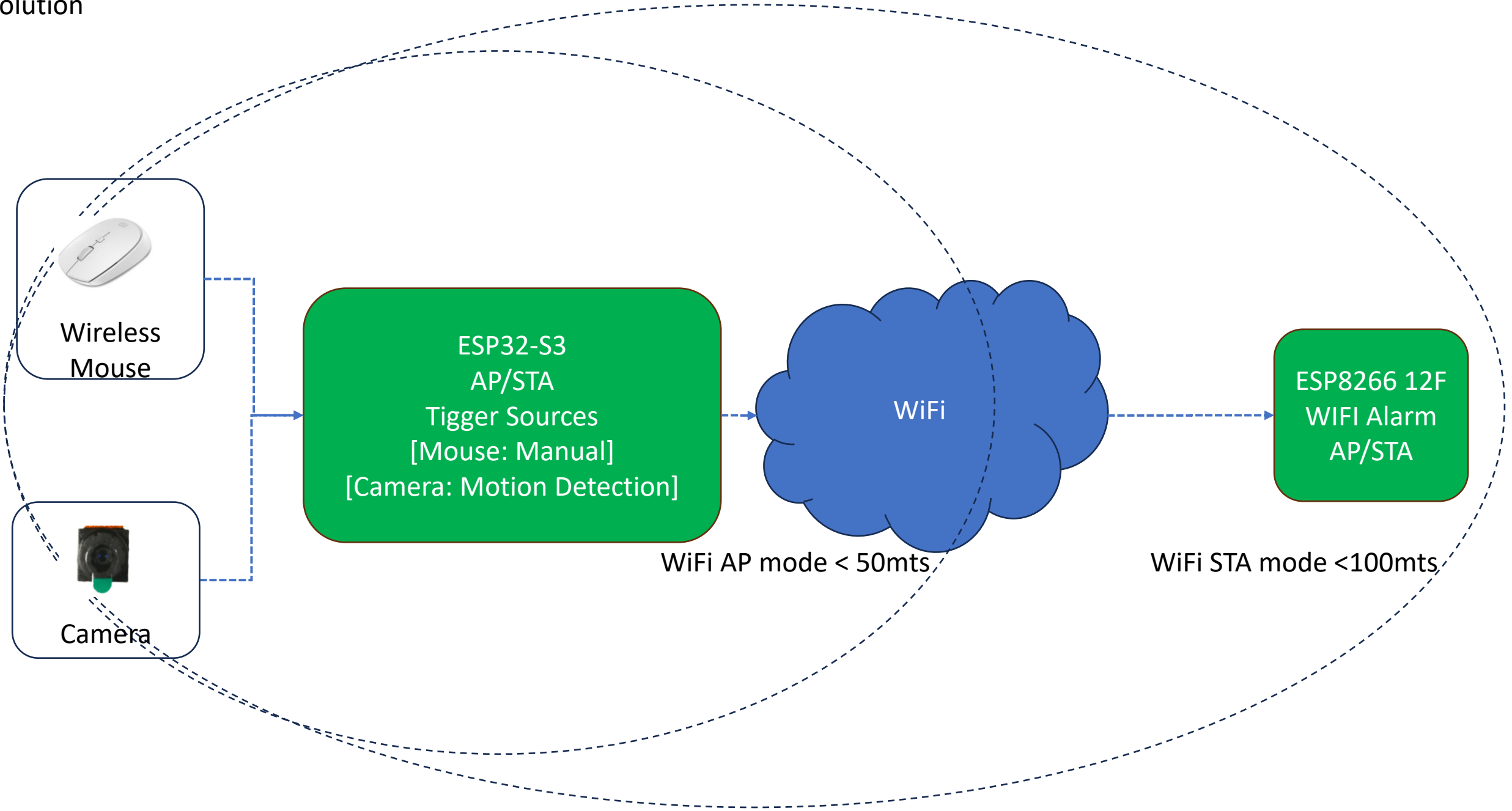
UseCase WiFi Speaker – Low Cost



System



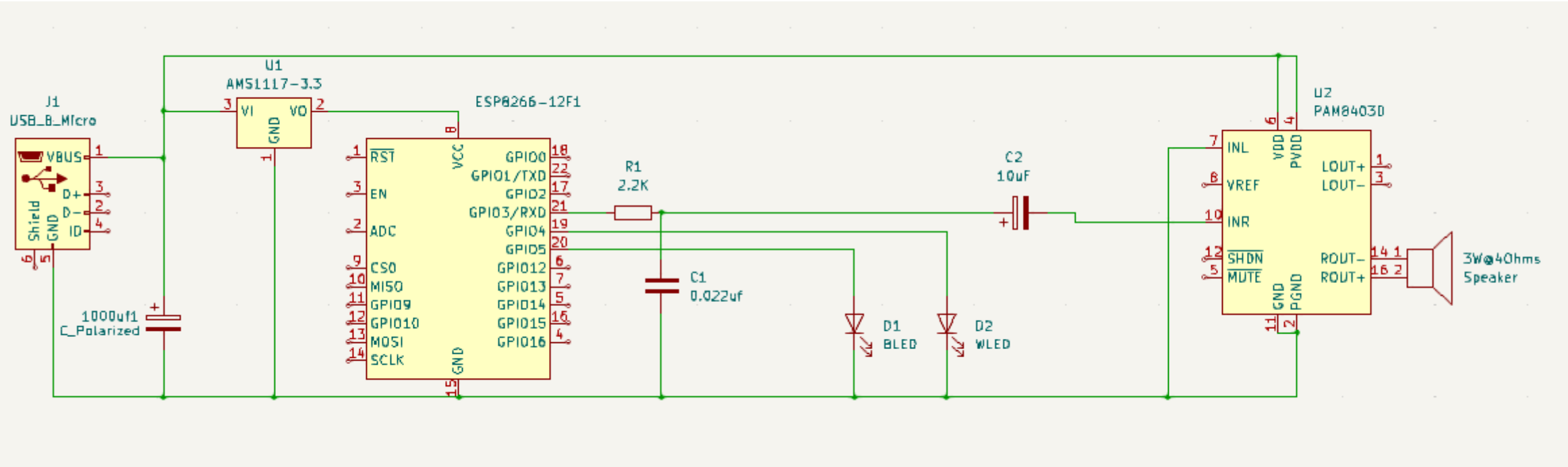
Solution

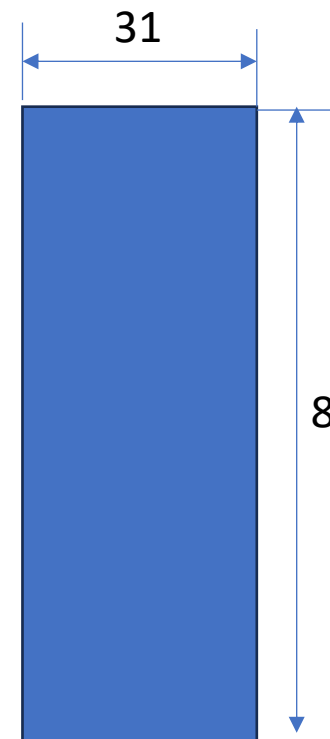
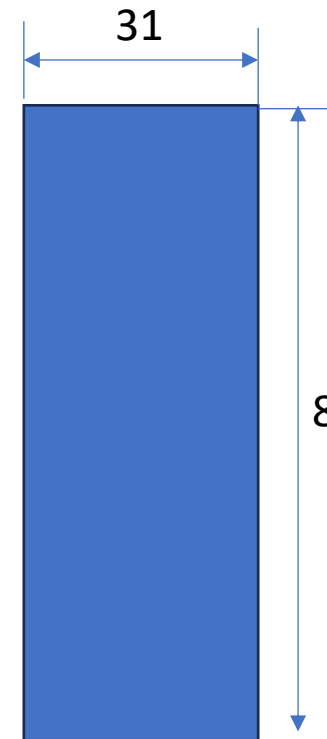
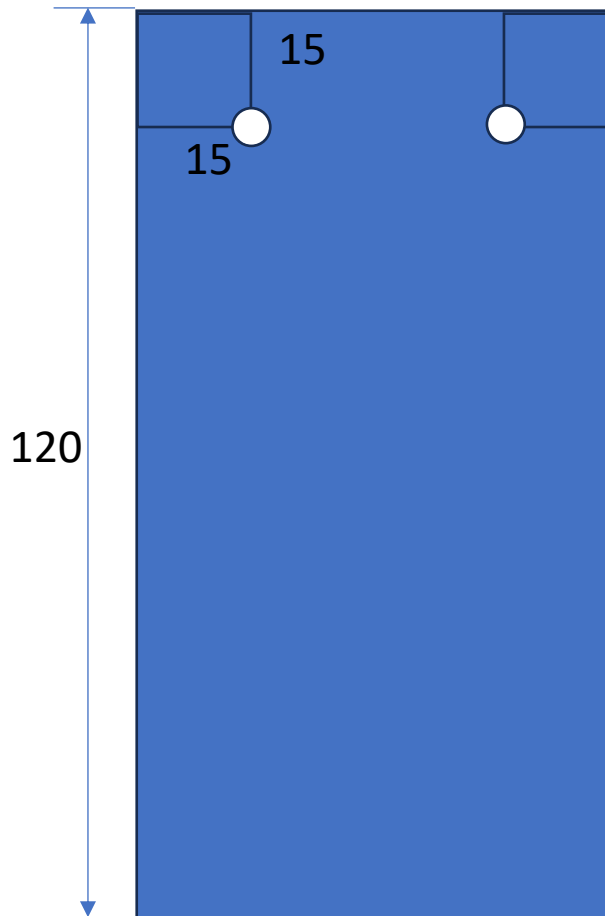
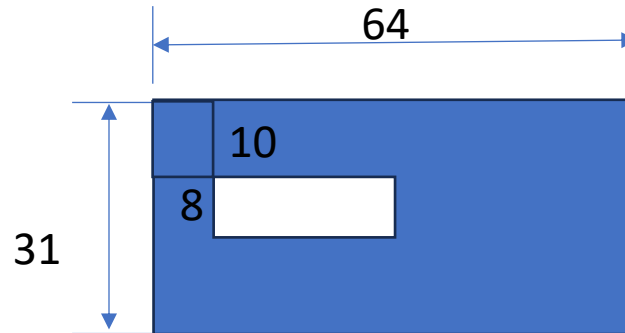
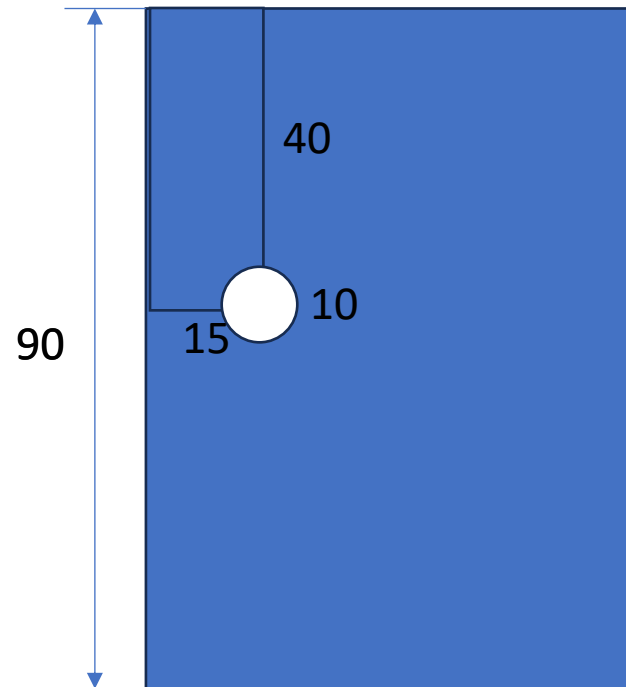
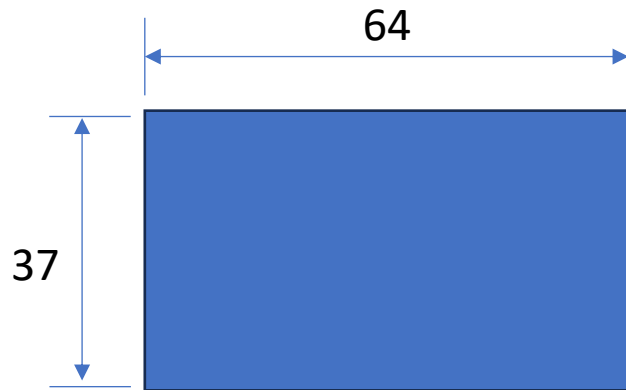


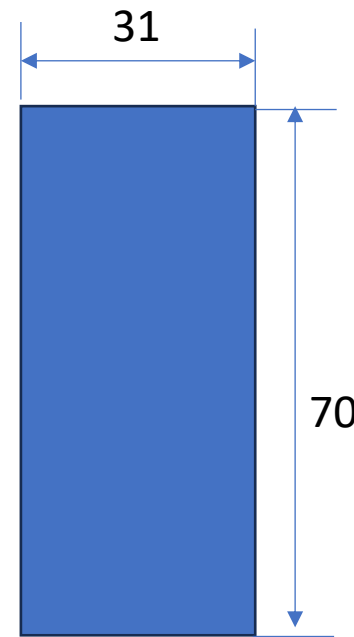
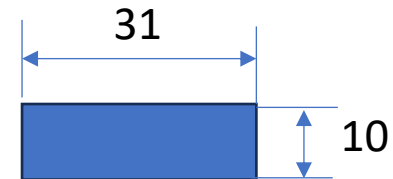
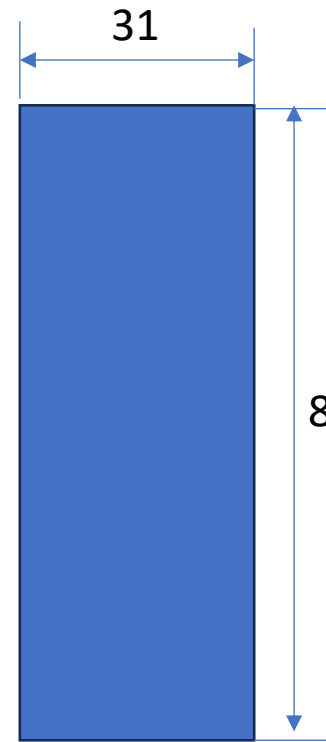
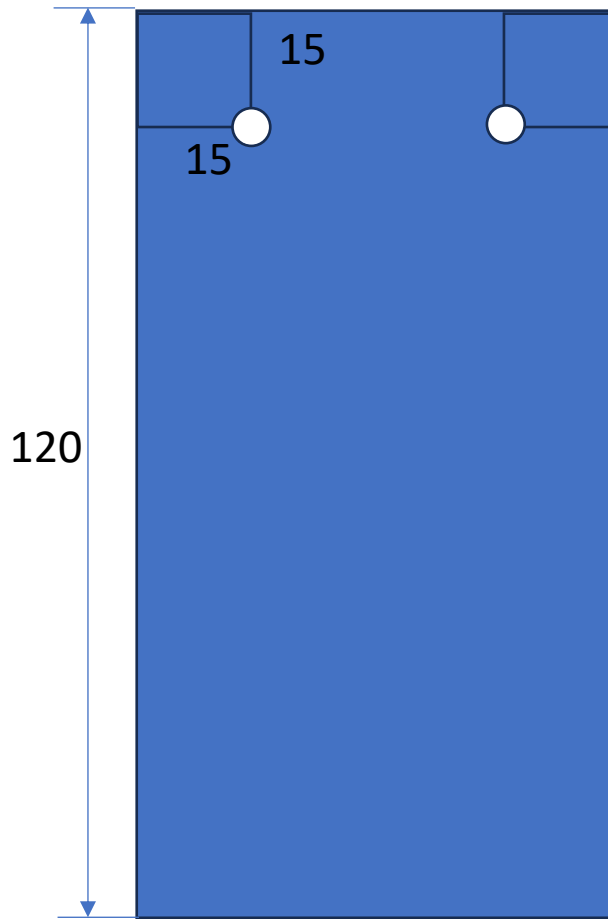
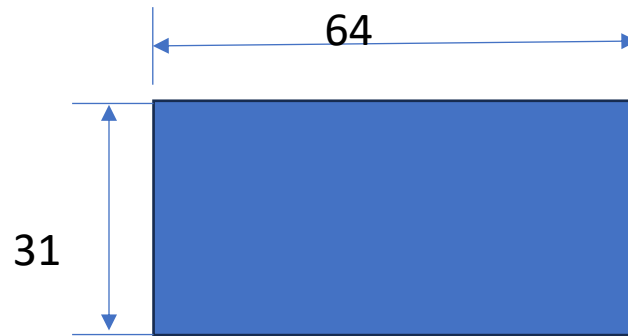
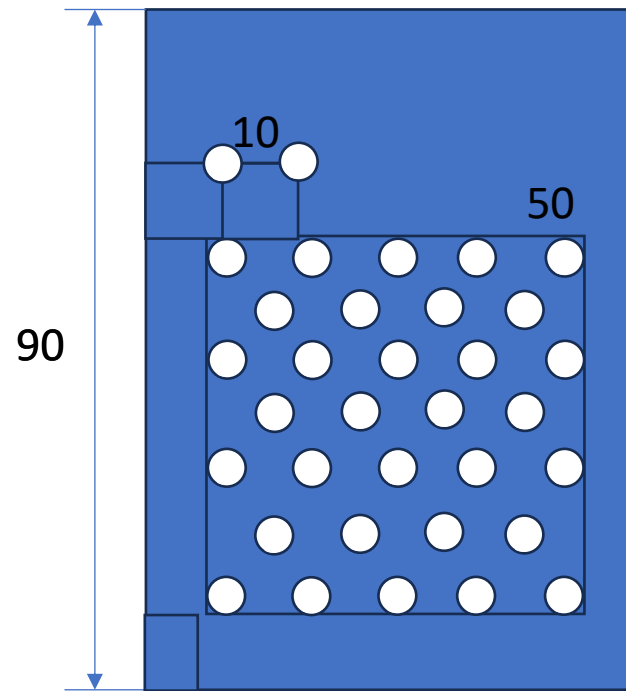
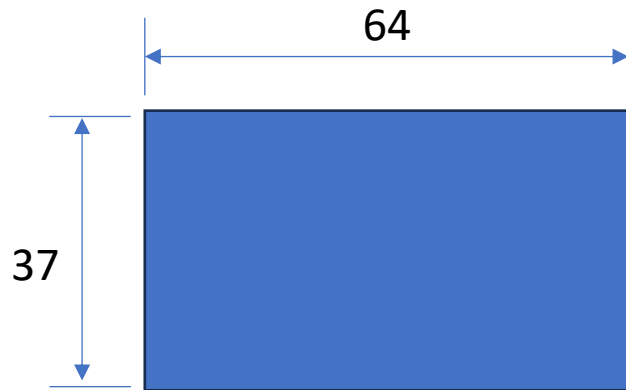
BOM

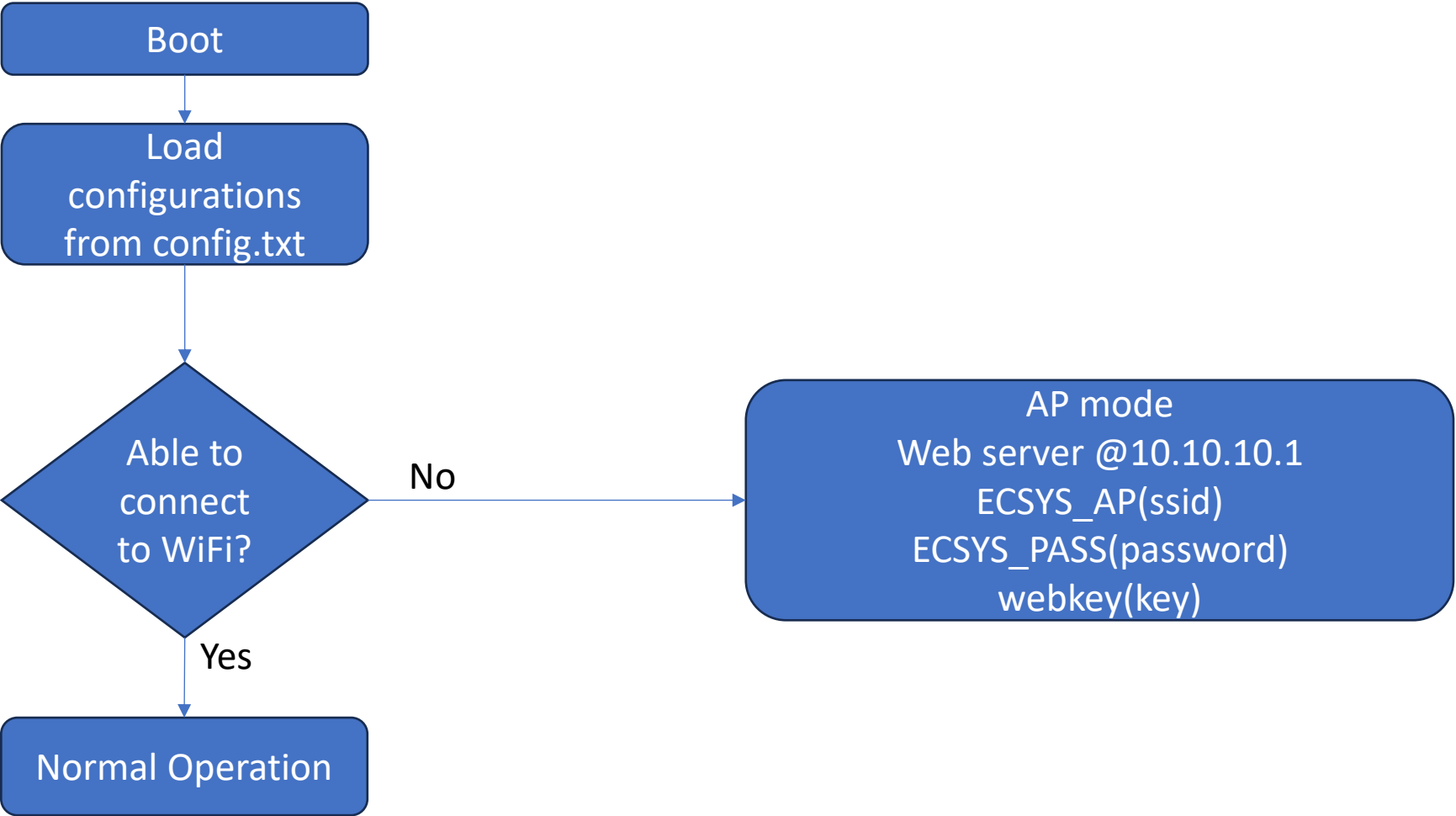
Item	INR	Comments
Wireless Mouse	269	https://www.portronics.com/products/toad-23
ESP32 S3 + OV2640	827	https://www.autables.com/product-page/esp32-s3-cam-n16r8-development-board-wifi-bluetooth-ov2640-camera-type-c-arduino
USB OTG	160	https://kdmindia.in/product/km-otc/
ESP8266-12F	99	https://robu.in/product/latest-esp-12f-esp8266-wifi-module-ap-station-remote-serial-wireless-iot-board/
SPEAKER	40	
PAM8304	19	
USB micro	7	
PCB	40	
Acrylic Works	250	
OLED	135	
Total	1851	22\$ USD

ESP 8266 -12F









On Boot

LED Colour = ON
LED White = ON

On Attempt to Connect to WiFi

Both LED's will
Blink in Sync

WiFi_SSID:

WiFi_PASSWORD:

KEY:

Reboot

AP Mode
Both LED's will blink
in Alternative

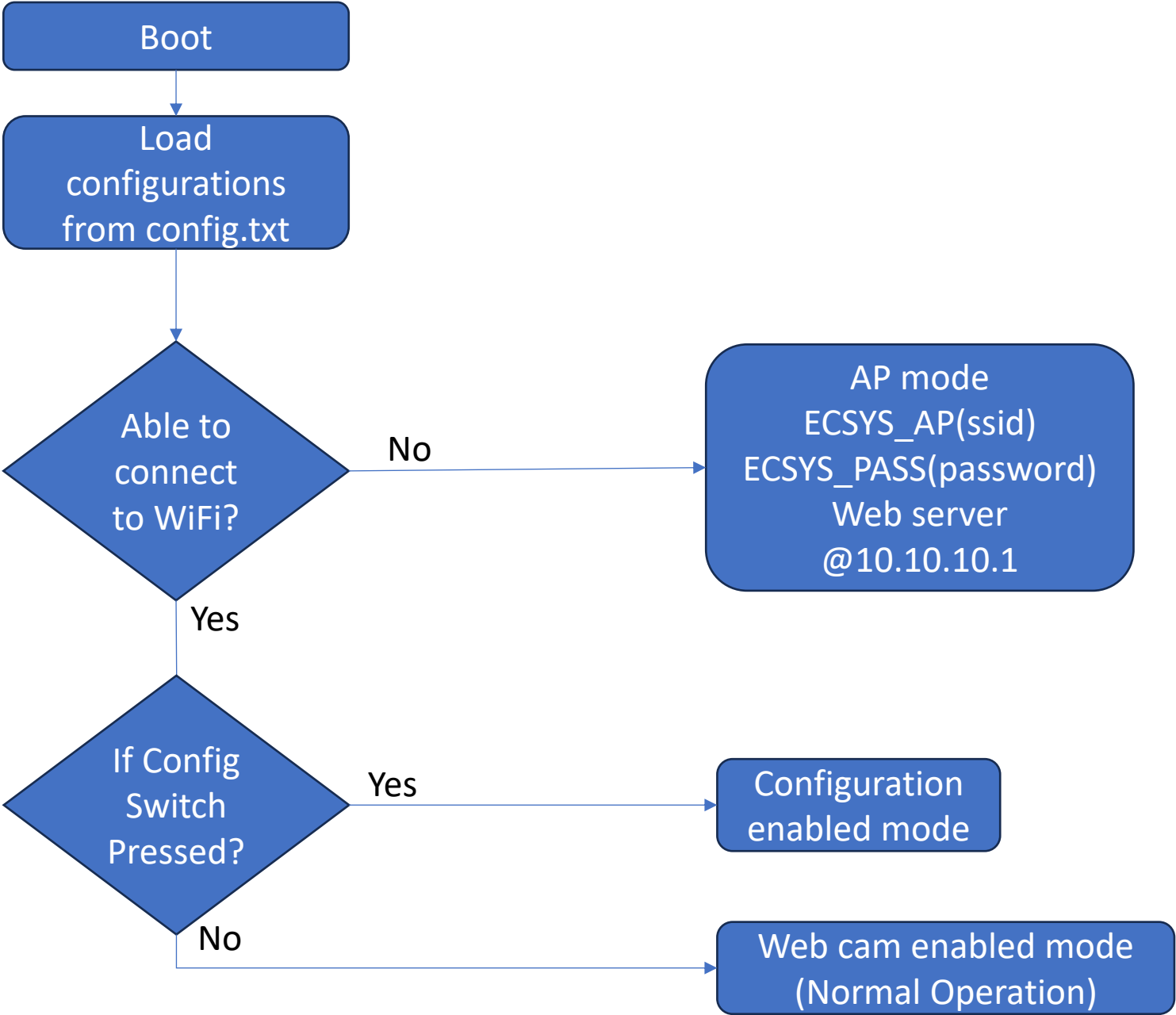
No

Able to
connect
to WiFi?

Yes

LED White = OFF
LED Colour =
BLINK upon
receiving KEEP
ALIVE packets

When WiFi Alarm unable to connect to preconfigured Wifi LAN network it will enter into AP mode. In this mode user can connect using default username and password and enter credentials for new available WiFi network



Screen Shots



Region Of Interest (ROI)
This area is processor
for image processing to
detect any motions

ECSYS Configuration[233 Bytes]

Sample Configuration

```
ssid = sarath_nivas_EXT #wifi ssid
pass = land1234 #wifi password
jpeg = 100 #jpeg image quality 0 - 100
beacon = 15 #beacon time out 1-255 seconds
mouse = 3 #mouse level sensitivity L=0,L+R=1,L+R+M=2,L+R+M+S=3,L+R+M+S+movement=4
key = espkey #secret shared between wifi alarm and ecsys
mdini = 16,24 #start time 0-23, duration 0 -24 in hrs, 0 = disable
mdth = 1024 #motion detection threshold 1 - 2^32
mdroi = 40,40,560,400 #x,y,w,h on 640x480 ROI for motion detection
mdalrm = yes # if yes alarm will ring on motion detection
tz = UTC-5:30 #setting timezone for India
ts = 2025,02,20,10,30 #if NTP fails this year,month,date,hour,minute will be time at bootup
sdcard = yes #enable = yes [MAKE SURE SDCARD IS INSERTED FOR SYSTEM BOOT UP if enabled]
led = yes #enable = yes else disabled blinking led
msg = 1234567890 #user specific message
```

```
ssid = sarath_nivas_EXT
pass = land1234
jpeg = 100
beacon = 15
mouse = 3
key = espkey
mdini = 16,24
mdth = 1024
mdroi = 40,40,560,400
mdalrm = no
tz = UTC-5:30
ts = 2025,02,20,10,30
sdcard = yes
led = yes
msg = 1234567890
```



BLUE SLOW BLINKING – System bootup



WHITE SLOW BLINKING with LCD NO SCROLL– System running , showing WiFi = STA or AP , SD = Y/N, IP address Y/N (If Y NTP is synced and N means configured time is used), Current time, “NOT CONNECTED”



GREEN SLOW BLINKING – System connected to alarm unit with LCD – scrolling left showing “SYSTEM ACTIVE” and user message.



YELLOW Slow blinking Press user switch to enter into configuration mode. LCD will display Configuration Mode



ORANGE Slow blinking. LCD will display Remote Monitoring WEB



ALARM LCD will display and Scroll “System Active” and User message