Full Connection Schematics for Kiko

1. MAX98357A to XIAO ESP32-S3 Sense

- **Vin:** XIAO **VUSB / 5V** Pin (Provides maximum power to the amplifier)

- **GND:** XIAO **GND** Pin

- **LRC (Left/Right Clock):** GPIO **7**

- **BCLK (Bit Clock):** GPIO **5**

- **DIN (Data In):** GPIO **6**

- **Gain Logic: 100kΩ Resistor** between **GAIN** and **GND**

    - *Effect:* This sets the gain to **15dB**. It's a perfect "middle-ground" setting that prevents the speaker from distorting (clipping) while keeping Kiko's voice loud enough to hear across a room.
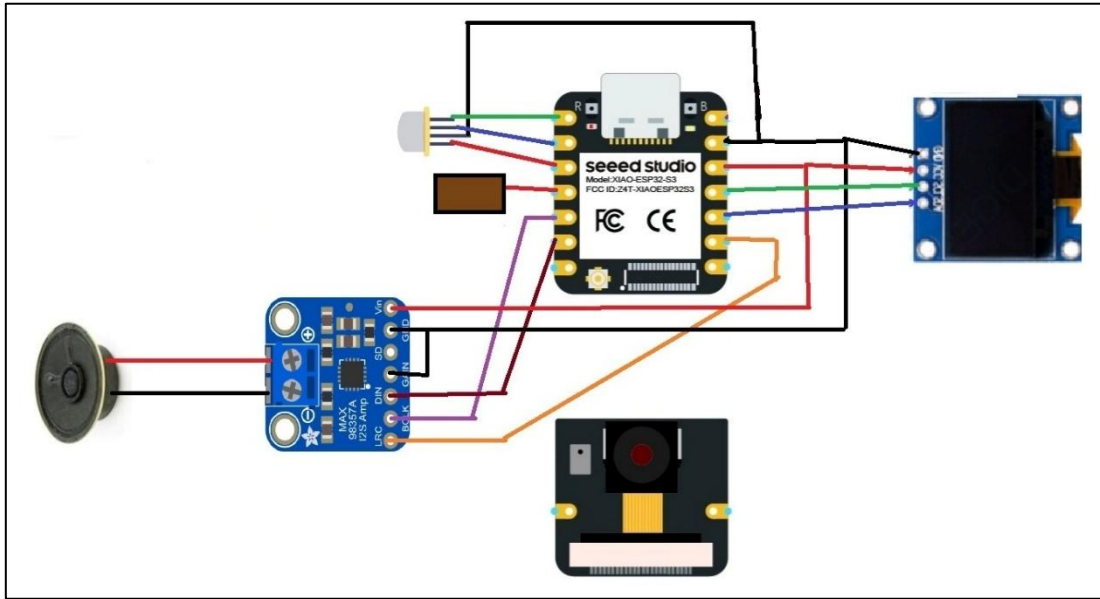
2. Speaker to MAX98357A

- **Speaker (+):** MAX98357A **OUT+**

- **Speaker (-):** MAX98357A **OUT-**

3. Interaction & Visuals (OLED, LED, Touch)

- **OLED Screen (SSD1306/SH1106):**

    - **SDA:** GPIO **8**

    - **SCL:** GPIO **9**

    - **VCC:** XIAO **3.3V** Pin

    - **GND:** XIAO **GND** Pin

- **RGB LED:**

    - **Red:** GPIO **2**

    - **Green:** GPIO **1**

    - **Blue:** GPIO **3**

    - **GND:** XIAO **GND** Pin

- **Touch Pad:**

    - **Pin:** GPIO **4** (Connect a single wire to a metal pad or foil)

Connection diagram

Flowchart