

Intro to Electronics – Breadboarding

Lab #5 – Troubleshooting

1. Are you supplying the correct voltage to the circuit, both correct amount and polarity?
 - a. It seems simple, but all too often it is the simple stuff. Confirm with a multimeter.

2. Is your breadboard wiring **NEAT** (wire flat to board, arrangement logical, etc.) AND are all your wires/components arranged horizontally/vertically?

3. Are all the components correct:
 - a. Resistors correct values and in correct position?
 - b. Transistors – 3904 printed on flat face?
 - c. Potentiometer correct/specified value?
 - d. Capacitor correct /specified value

4. Are components connected correctly
 - a. LED in correctly according to polarity?
 - b. Electret Microphone in correctly according to polarity?
 - c. Transistors in correctly with wires/components connected to the proper legs (emitter, base, collector)?
 - d. Test the transistors:
 - i. Obtain a digital multimeter and set it to read ohms (Ω)
 - ii. <https://www.antimath.info/electro/how-to-test-a-bipolar-transistor/>

5. Did you strip the hookup wire long enough? Are they making good connections within the breadboard?