Backup Sensor Project

Objective:

Build a circuit and program the circuit to display the distance between the circuit (sensor) and the incoming object. Additional features are a LED that will blink more frequently when closer and closer to the incoming object. Also a piezo speaker will beep more frequently as the object gets closer too.

Connections:

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1. Set up VCC and GND to the breadboard.
2. LCD connections
    1. GND → VSS
    2. VCC → VDD
    3. POT WIPER → VO
    4. RS → PIN 12 (ARDUINO UNO)
    5. RW → GND
    6. E → PIN 11
    7. D4 → PIN 5
    8. D5 → PIN 4
    9. D6 → PIN 3
    10. D7 → PIN 2
    11. A → 220 OHM RESISTOR → VCC
    12. K → GND
3. POT connections
    1.WIPER as stated in Step 2
    2. Left to VCC, right to GND
4. Ultrasonic Distance Sensor connections
    1. VCC to VCC and GND to GND
    2. Trig(ger) → PIN 10
    3. Echo → PIN 13
5. Connect LED as usual (Use 220 ohm as it is the lowest resistor available)
6. Connect Piezo as usual (Use 220 ohm as it is the lowest resistor available)

Images