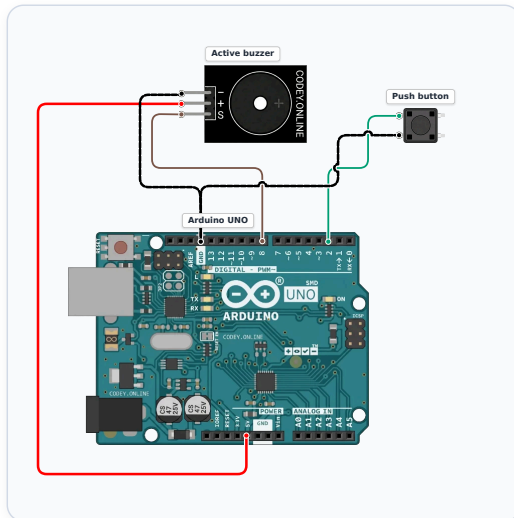


★ Beginner ⌚ 10 minutes

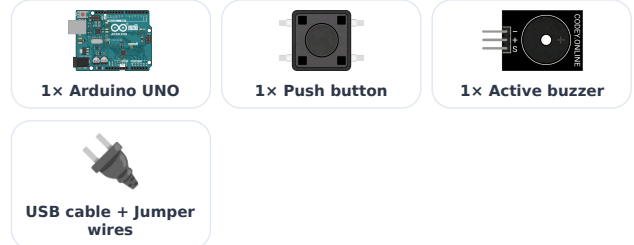
Doorbell

You make your own doorbell. Press the button and the buzzer says "ding-dong"!

Wiring diagram



What do you need?



This is how you build it

1. Put the pushbutton across the gap of the breadboard: one leg to pin 2, and a leg on the other side to GND.
2. Connect the buzzer: S to pin 8, + to 5V and – to GND.

The code

```
// Doorbell
// Press the button and the buzzer plays a happy "ding-dong".

const int BUTTON_PIN = 2; // Pushbutton on pin 2 (other side to GND)
const int BUZZER_PIN = 8; // Active buzzer: S on pin 8

void setup() {
  pinMode(BUTTON_PIN, INPUT_PULLUP); // Released = HIGH, pressed = LOW
  pinMode(BUZZER_PIN, OUTPUT);
}

// Let the buzzer beep for a while
void beep(int howLong) {
  digitalWrite(BUZZER_PIN, HIGH);
  delay(howLong);
  digitalWrite(BUZZER_PIN, LOW);
}

void loop() {
  if (digitalRead(BUTTON_PIN) == LOW) { // Someone presses the bell!
    beep(300); // "Ding"
    delay(150);
    beep(600); // "Dong"
    delay(1000); // Wait a bit, so the bell does not keep ringing
  }
}
```

What does the code do?

- The button is on pin 2 and the buzzer is on pin 8.
- The function `beep()` turns the buzzer on for a moment and then off again.
- When the button is pressed, we play a short beep and a long beep.

Try this...

- Play a happy little tune of five beeps
- Also make an LED blink when someone rings the bell
- Count how many times the bell has rung and show it in the serial monitor

🚀 Build this project with Codey: open codey.online/starter-kits/uno/projects/doorbell and click MAKE THIS. Then the code and the wiring diagram are ready right away.