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Doflye Arduino Manual

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TL;DR: The Doflye manual, while not completely horrid, really sucks.

When I purchased my Arduino kit(s) from TaoBao**, it came with a Manual written in Chinese, " __ " or "Makers Introduced To Practice". I didn't see this as much of a problem. Over the next few months, I slowly used an image translation APP to learn some theory. The problem with this method is since I cannot read Chinese at this level, I had no choice but to just take their word for it.

Another downside to my method: lack of information. The writers of this book decided that just a few quick points would be more than enough.

Example using Buzzers vs Speakers:

There is a full-page, *page 85*, dedicated to comparing Electromagnetic Speakers to Piezo Buzzers. The author tells you what they are, how they work, how they're made, and some differences.

!! Do not use these notes to study from!!
I will link proper notes in the future.

Page 85: (copied from image translator APP)

- Buzzer = active; horn (speaker?) = passive
  Huh?
- 1. The Buzzer is directly fixed to a DC voltage, and a fixed frequency of sound is produced when the power is switched on.
  An Electromagnetic Buzzer is composed of an oscillator, electromagnetic coil, magnet, vibration diaphragn and shell, etc.
  After switching on the power, the audio signal current generated by the oscillator passes through the electromagnetic coil, causing the electromagnetic coil to generate a magnetic field. The vibration diaphragm vibrates and produces sound periodically under the interaction of the electromagnetic coil and magnet.
  Piezoelectric Buzzer is mainly composed of a multi-spectrum oscillator, the piezo buzzer, impedance matcher, resonator, and shell. Some Piezoelectric buzzers also have a light-emitting diode (LED) in their housing. A multi-spectral oscillator consists of a transistor or an integrated circuit.
  When power is switched on (1.5~15V DC working voltage), the multi-vibrator starts to vibrate and outputs a 1.5~2.5kHz audio signal. The impedance matcher drives the piezoelectric buzzer to sound.
  The speaker is the coil, magnet, diaphragm, and enclosure. There are no oscillating sources.
- 2. The buzzer can only be driven with a fixed voltage, and the occurrence frequency is factory fixed.
  The horn emits a variety of sounds through the drive.
  Stereo, MP3, earphones, mobile phones are used by the speaker. The sound frequency can be changed some alarms can only emit "didi" (I think they mean the beep of morse with a telegraph) sound is generally a buzzer.
  application features: Buzzer drive us relatively simple, assuming a 5V buzzer. 2 terminal voltage plus 5V can produce a sound.
- Before looking at the [Arduino Sketch], learn about one of the internal functions: **tone()** and **notone()**.
  These two functions are vocal functions that generate a square wave with a specific frequency duty cycle of 50% at the specified lead time. [?] One of them is the square wave the occurs, and the other is the stop square wave. In fact, the inside is controlled by a timer, so there is no need to understand the internal structure. The square wave can be realized by directly wiring the requirement as a parameter. The sound of the corresponding frequency can be emitted by connecting the passive buzzer or horn, and the sound frequency and time can be played by changing the rythem of the music beats. **tone()** has the following two forms or parameters: **tone(***pin, frequency***)** -- specify the corresponding pin, specify the frequency. The **tone(***pin, frequency, duration***)** function does not stop until **notone(***pin, frequency, duration***)** is called. Stops automatically after the specified time.

Notes from Page 85:

- Buzzers can be active or passive. Passive buzzers behave like electromagnetic speakers.
- 2. Some buzzer uses DC, producing sound when current flows through.
- How they're composed.
- 2. Factories fix the frequency when they make the buzzers.
- A horn is told what to do by the program [the code].
- Speaking of code, this is what tone() and notone() do. No mention of digitalWrite(*pin, HIGH*) for the use with active buzzers.

In conclusion...

The Doflye manual is not the most complicated thing to study from with an image translator. I find sometimes it can be exhausting to read such confusing English. I have decided to borrowed a copy of "Arduino for Dummies", so over the months following this lesson I mostly had used the Dofly manual as a notebook to scratch on.

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