

HARDWARE

1x Computer with Arduino IDE Software
1x USB 2.0 Type A/B Data Cable
1x Arduino Uno Board
1x Solderless Breadboard
Nx Jumper wires

1x Active Buzzer
6x Tactile Switch with 6x 10KOhm Resistor
1x SSD1306 OLED Module i2c 64x128 pixel

- Modular Design Extension -

1x 10Kohm Thermistor(Beta=3380) with 1x 10KOhm Resistor

ATMEGA328/ARDUINO - PROJECT - DIGITAL ALARM CLOCK - OLED

https://github.com/teaksoon/p_daco



Positive



Negative

Active Buzzer is a special “speaker”. It will make sound when electricity flow through it. It has polarity, the Active Buzzer above shorter leg is connected to Negative (or GND) terminal, while longer leg to the Positive Terminal)

For Passive Buzzer, we will need to send Voltage in frequencies (ON/OFF sequence) before we can get sound. For Active Buzzer just Voltage will do, that is why we just use easier Active Buzzer for this project. All we need is just sound for our Alarm

Source code: **p_daco_active_buzzer**

Download from:

https://github.com/teaksoon/p_daco/blob/main/2022_01_01_p_daco_source.zip

Upload PROGRAM, Open the Serial Monitor and listen

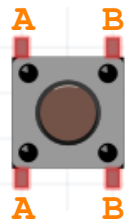


This PROGRAM simply turn ON the Active Buzzer for 200ms, then turn it OFF. You can try put in different duration

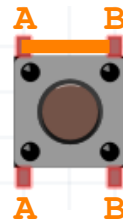
The Active Buzzer will be used for the Alarm function at the later stage of the project

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Button
is **released**
A/B is **disconnected**



Button
is **held-down**
A/B is **connected**

Tactile Switch is a mechanical switch.

It has a button on the outside and two separate metal plates inside the casing, Side A and Side B with both coming out of the casing. When the Button is held-down, Side A and Side B will be connected, when Button is released, Side A and Side B will automatically be disconnected

Source code: **p_daco_btn_esc**

Download from:

https://github.com/teaksoon/p_daco/blob/main/2022_01_01_p_daco_source.zip

Upload PROGRAM, Open the Serial Monitor

Press and Release the “esc” Tactile Button and watch the Serial Monitor



Source code: **p_daco_btn_all**

Download from:

https://github.com/teaksoon/p_daco/blob/main/2022_01_01_p_daco_source.zip

Upload PROGRAM, Open the Serial Monitor

Press and Release each of the Tactile Buttons and watch the Serial Monitor



When each button is held down, a message will be sent to the Serial Monitor. At later stage of this Project where each of the buttons will have its own special functions when pressed down