Embedded System HW2

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Introduction

這次作業主要是使用邏輯分析儀來看輸出的PWM(Pulse-width modulation)訊號。

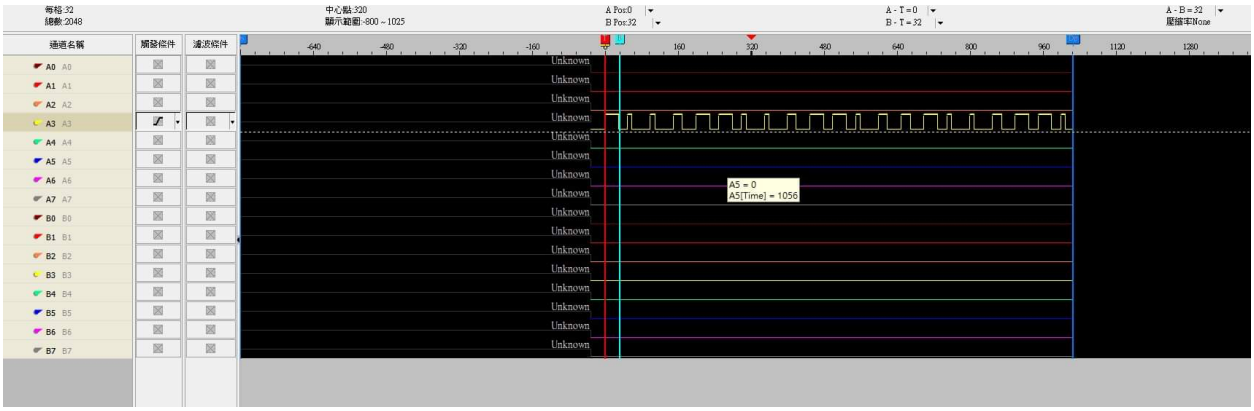
Pulse-width modulation

這次作業希望能做出電風扇自然風模式的訊號，透過長短訊號的變化可以模擬自然風。

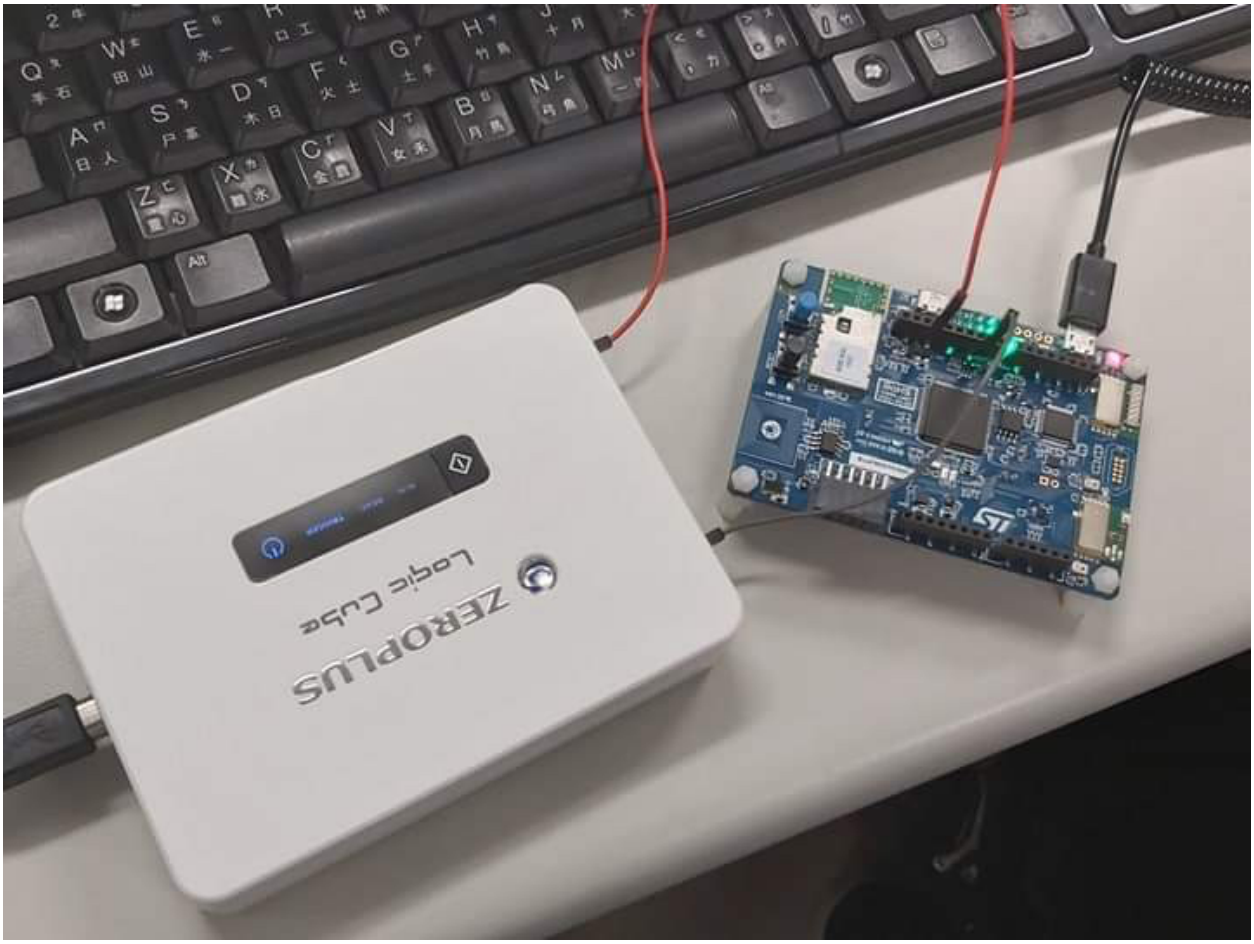
```
PwmOut led(PWM_OUT);

int main()
{
    led.period(0.05f);
    int count = 0;
    while(1)
    {
        if (count % 3 == 0)
        {
            led.pulsewidth(0.01f);
        }
        else if(count % 3 == 1)
        {
            led.pulsewidth(0.02f);
        }
        else
        {
            led.pulsewidth(0.03f);
        }
        count ++;
    };
}
```

Results

透過邏輯分析儀可以看到輸出訊號的波形。



裝置架設



Full Code

AlexLee1999/Embedded-System-Lab

Contribute to AlexLee1999/Embedded-System-Lab development by creating an account on GitHub.

https://github.com/AlexLee1999/Embedded-System-Lab/blob/main/Lab2/main.cpp

Reference

Pulse-width modulation

Pulse width modulation (PWM), or pulse-duration modulation (PDM), is a method of reducing the average power delivered by an electrical signal, by effectively chopping it up into discrete

https://en.wikipedia.org/wiki/Pulse-width_modulation