**電通二乙微處理器實驗 實驗結報**

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| **實驗名稱** | **Lab06-CP1** | | |
| **組別** |  | **組員** | **柯鈺傑** |

1. **實驗目的**

**利用蜂鳴器播放一段旋律**

1. **實驗步驟**

**使arduino接蜂鳴器發出特定的聲音**

1. **程式碼**

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| --- |
| **#define eight 0.5**  **#define sixteen 0.25**  **#define pin 8**  **const int toneTable[7][3]={**  **{131, 262, 523}, // C Do 1**  **{147, 294, 587}, // D Re 2**  **{165, 330, 659}, // E Mi 3**  **{175, 349, 698}, // F Fa 4**  **{196, 392, 784}, // G So 5**  **{220, 440, 880}, // A La 6**  **{247, 494, 988} // B Si 7**  **};**  **void Tone(int a,int b,int c)**  **{**  **tone(a,b,c);**  **delay(c);**  **noTone(a);**  **delay(50);**  **}**  **void setup() {**  **pinMode(pin,OUTPUT);**  **noTone(pin);**  **}**  **void loop() {**  **Tone(pin,toneTable[2][2],500\*eight);**  **Tone(pin,toneTable[2][2],500\*eight);**  **Tone(pin,toneTable[2][2],500);**  **Tone(pin,toneTable[2][2],500\*eight);**  **Tone(pin,toneTable[2][2],500\*eight);**  **Tone(pin,toneTable[2][2],500);**  **Tone(pin,toneTable[2][2],500\*eight);**  **Tone(pin,toneTable[4][2],500\*eight);**  **Tone(pin,toneTable[0][2],500\*eight\*1.5);**  **Tone(pin,toneTable[1][2],500\*sixteen);**  **Tone(pin,toneTable[2][2],500);**  **delay(500);**  **Tone(pin,toneTable[3][2],500\*eight);**  **Tone(pin,toneTable[3][2],500\*eight);**  **Tone(pin,toneTable[3][2],500);**  **Tone(pin,toneTable[3][2],500\*eight);**  **Tone(pin,toneTable[2][2],500\*eight);**  **Tone(pin,toneTable[2][2],500);**  **Tone(pin,toneTable[4][2],500\*eight);**  **Tone(pin,toneTable[4][2],500\*eight);**  **Tone(pin,toneTable[3][2],500\*eight);**  **Tone(pin,toneTable[1][2],500\*eight);**  **Tone(pin,toneTable[0][2],500);**  **delay(500);**  **}** |

1. **實驗結果及分析**

**如預期發出特定旋律**

1. **心得討論**

**Arduino與蜂鳴器能發出的音色有限，比較適合偏單一音階的音樂。**