TASK1.1P

**Describe how you would use modular programming to improve the usability of your Blink LED program written in Part 2 –**

To improve the usability and functionality of the Blink LED program designed to signal the name “Pau” in Morse code, modular programming is applied to break down complexity into smaller code and improve readability. For this task, the Built in LED is utilised on pin 13 and the button is stored in a variable connected to pin 2. This is then setup to declare their role, the led pin is set to Output, while the button Pin is set as input with pull-up resistor.

Now these, functions can be called in a loop using if condition and digitalRead() to detect up if the button is being pressed down. Since this is a small and simple task, the blinking is kept at a slow pace to be precise and easy to understand while helping reduce the bouncing effect.

Though the task runs smoothly, there are many adjustments and implementation that could be done for a more efficient runtime. For example, there could be different variable implemented with different time, such as dot duration or gap duration etc. so they can easily be called in the delay() instead of manually setting the milliseconds. Another example is using two functions for each of the morse code characters, one for dot and one for line, so they can easily be called with their delays.

YouTube Video - <https://youtube.com/shorts/nrh1LA8k2FE?feature=share>