MAKERFEST\_3.0 Tasks [EE25B133]

1. Blink the LED: <https://wokwi.com/projects/442956344518642689> ✅  
   The led blinks every alternate 1 second as the board sends high(Maximum voltage) and low(zero voltage) signals to the output pin. When it's high, potential difference is generated and the led glows.  
   delay(x) is added to put the board in stand by mode for x milliseconds.
2. Blink LED if Button is pressed: <https://wokwi.com/projects/442916098029793281> ✅  
   I used input\_pullup here. So when the button is pressed, it reads low and high is sent to the led. On stand by condition, it reads high and low is sent to led so that when the button is in released state, it won’t confuse between low and high signal.
3. Control Brightness by Potentiometer: <https://wokwi.com/projects/442918039326954497>  
   <https://wokwi.com/projects/443188691959443457> (without ledc library) ✅  
   It reads the analog value from potentiometer, ADC converts it into 12-bit resolution digital signal, then through pwm the brightness level signal is passed to the pwm channel which is connected to the led pin. Ledc library is used for this.
4. Display 0-9 in 7segment LED: <https://wokwi.com/projects/442920262450947073>  
   All the 7 internal segment LEDs have one common terminal(COM) and one individual terminal for each(a,b,c,d,e,f,g). To display the digits, we need to check which terminal corresponds to which led in the given display and then configure the led signals for each number. For example, for 0 we need to pass HIGH signal to outer segment LEDs and for 1 we only need the right LEDs.
5. Count 0000-9999: <https://wokwi.com/projects/442941504378165249>  
   (not complete yet, moved on to next assignment)