### TECHIN 512 “The Emitter V1.5”

Rev 1.2 Sept 2021

The emitter can generate period pulses with an extra pulse appears every several seconds. The emitter can be easily built using an Arduino.

In order to build the emitter, we need 1 Arduino, 1 LED, 1 resistor (100-300 ohm) and several wires.

* First, connect the LED and the resistor in series, and then connect it between Arduino pinout 2 and GND (make sure to check the ‘+’ and ‘-’ of LED).
* Second, upload the code script (which can be found in the same folder as this file) to Arduino. The pulse signal is output at pinout 6 and the trigger for oscilloscope is output at pinout 13. The trigger signal can be used to stabilize the output view of oscilloscope.

Software loop outputs a positive, logic “1”, pulse of approximately 10 microseconds duration every 1.0 MS. About every 2-4 seconds it outputs an extra pulse.

* Arduino pinouts:
  + #define LED\_OUTPUT 2
  + #define PULSE 6
  + #define SCOPETRIG 13