

The diagram shows an I2C interface circuit for an EDLC module. The central component is an LM3555 timer (IC1). The circuit includes several components and connections:

- Power and Ground:** The circuit is powered by a 5V supply (PD9) and ground (PD10). A 1.0uF capacitor (C1) is connected between PD9 and PD10. The LM3555 is connected to ground at pins 7, 8, and 9.
- Timing Network:** A timing network consisting of a 4.7uF capacitor (C2) and two 47k resistors (R13, R12) is connected to pins 14, 13, and 12 of the LM3555.
- Output Stage:** The output of the timer (pin 11) is connected to a 6.2V LED (ZD1) through a 10uF capacitor (C5) and a 2.0 ohm resistor (R11). The LED is connected to ground (PD10).
- Input Stage:** The input signal (PD17) is connected to pin 10 of the LM3555. A 10k resistor (R5) is connected between PD17 and pin 10. A 0.02 ohm resistor (R4) is connected between pin 10 and ground.
- EDLC Module:** The EDLC module (EDLC1) is connected to the circuit. It has a 1.0uF capacitor (C3) connected to pin 19. The module is connected to ground at pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
- Connections:** The circuit is connected to a microcontroller unit (MCU) through a connector (CN1-1, CN1-3). The MCU provides power (PD9, PD10) and the I2C signal (PD17).

Light Signal from MCU

## I2C from MCU