Alireza Dizaji

problem 5:

LED max current

The LED current must be less than the maximum permitted for your LED. For standard 5mm diameter LEDs the maximum current is usually 20mA, so 10mA or 15mA are suitable values for many circuits. The current must be in amps (A) for the calculation, to convert from mA to A divide the current in mA by 1000.

The maximum current is shown on LED datasheets, for example 20 mA (0.020A) is common for many small LEDs. Many circuits operate LEDs at less than the recommended maximum current, to save power, to permit the use of a standard resistor value, or to reduce brightness.