

## Quiz W3:

1. What tolerance the resistor **marked** as 1.01k must have? Justify your solution. Look at Slide 4 of today's lesson and do not mention any color coding - assume the value is written on the resistor.
2. What is the unit to measure electrical capacitance? Relation of  $I_c(t)$  to  $V_c(t)$ .
3. What is the unit to measure electrical inductance? Relation of  $V_i(t)$  to  $I_i(t)$ .
4. Describe I2C vs. SPI pros and cons.
5. What types of communication interfaces used in the STM32L475 board? How many **signal lines** does each one require?
6. What properties and what for - should be assigned to a standard electrical symbol in KiCAD?
7. Which of the following are essential features in a battery-powered home thermostat? Why?
  1. High throughput MCU
  2. Very low sleep power
  3. Wake-up time of 1 microsecond
  4. Fast radio interface
8. Give five examples of embedded systems in your home appliances (not a thermostat, please) and describe their (ES) functions.
9. What **types** of requirements and specifications are considered for design of a new product? (Lesson 1)
10. What **type** of product testing is required for certification of the product?