1.A light sensor (photoresistor) is an analog sensor.

**True**

False

2.A microphone is a digital sensor.

True

**False**

3.A push button is an analog sensor.

True

**False**

4.A keyboard is a digital sensor.

**True**

False

5.Which of the following components are actuators? Select all that apply.

**a servo motor**

a thermometer

**an LED**

a CMOS camera

**a heating element**

6.The component of an embedded system that executes a program is:

an FPGA

an analog-to-digital converter

**a microcontroller**

a sensor/actuator pair

7.An analog-to-digital converter is common in embedded systems because

**many sensors are analog while the microcontroller is digital.**

analog computation is faster than digital.

analog computation uses less battery power than digital computation.

digital data is generally more compact than analog.

8.Consider the anti-lock braking system in a car. What are the main sensors and actuators of this system from the perspective of the driver?

accelerator pedal and turn signal

gearshift and dashboard monitor

brake pedal and steering wheel

**brake pedal and brake calipers and pads**

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