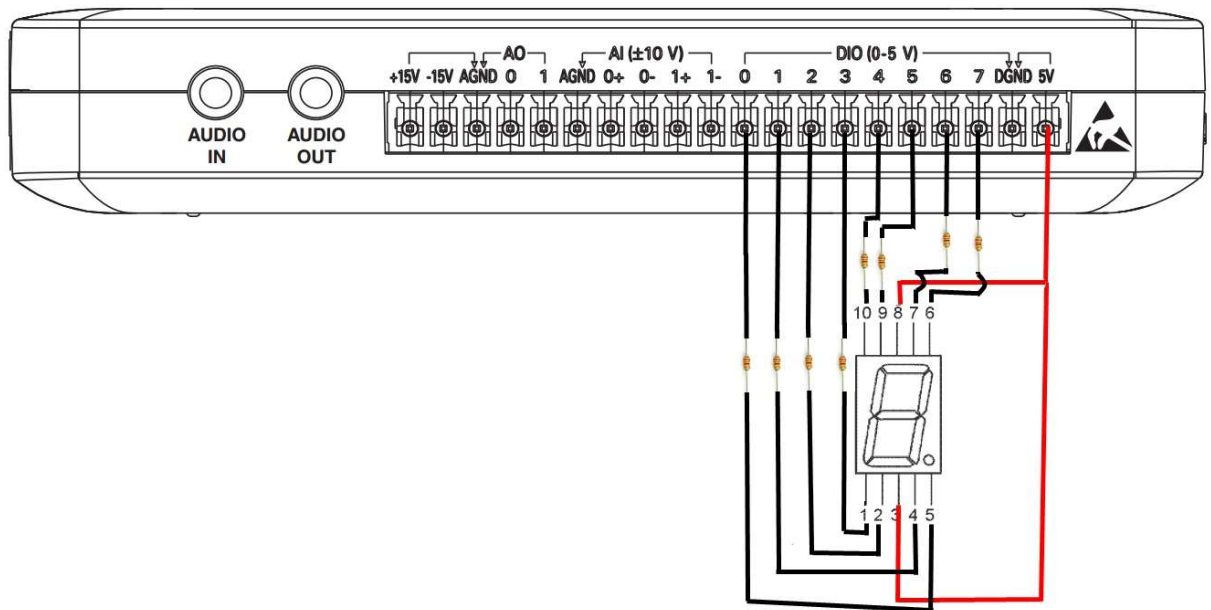


Lab 8 exercises

1. Assignment

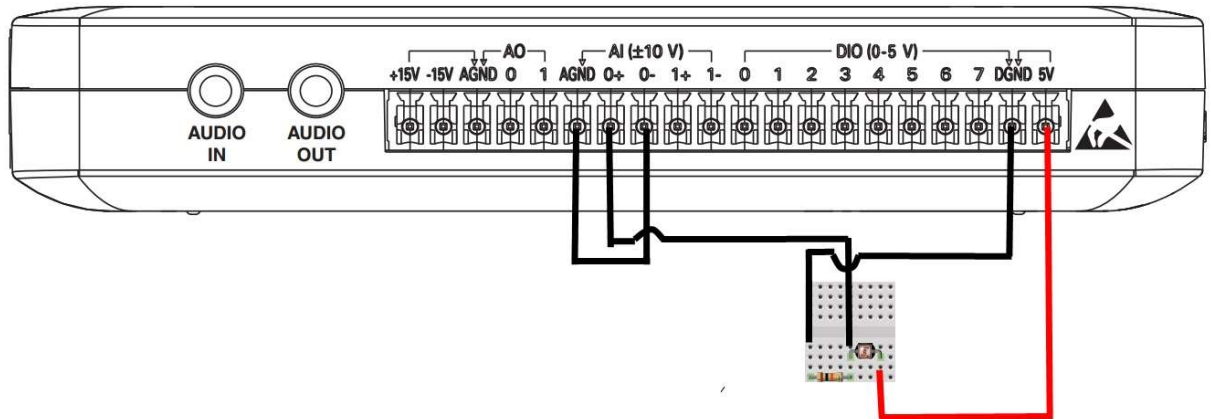
Connect the digital MyDAQ outputs as shown in the picture.



Produce a VI which generates a random number in the 0-9 interval every time the button *Generate* is pressed. Display the generated number on the 7-segment display you've connected to the MyDAQ. The program should end when the *STOP* button is pressed.

2. Assignment

Connect the analog inputs of the MyDAQ device as shown on the picture.



Produce a VI which reads the value from the AI0 input connected to the photoresistor. The measured voltage is to be converted into illumination which is measured in *lux* according to the following expression:

$$Luks = \frac{500 \cdot U_{ul}}{5 \cdot R - U_{ul} \cdot R}$$

where U_{ul} represents the measured voltage and R is the *pull-down* resistor value (10k Ω).

Display the calculated value using a numeric indicator (*Gauge* with a *log* scale).

The *Front panel* should also contain the button *Save dana* which should enable writing the current *Luks* value to a file on the disk.