

Exercise 3

You may wish to wait with this exercise till after doing the second lab.

1. Make a VI that converts the output from eight toggle switches into a hexadecimal number. Hints: use Build array to convert to a Boolean array and then convert to number. Right click on indicator and select properties to select format.
2. Make a VI with a colour control that allows you to select a colour and have the RGB values shown on indicators.
3. A) Make a VI that allows you produce a signal between 0 to 10 units (such as might be used to control a current source for a magnet) by continuously turning course, medium, fine controls with a setting accuracy of 1 part in 10^5 .
B) How many bits are needed to represent a signal with a precision of 1 part in 10^5 ?
(This is a real need for focusing a precision magnetic quadrupole lens for the DREAM project.)

Report your exercise by showing the control panel and the block diagram.