



OBJECTIVE: This experiment will demonstrate how to control two LEDs using a single output pin on the Snapduino.

Parts List

Quantity	ID	Name	Part #
1		Base Grid Base Grid (11" x 7.7")	6SCBG
1	1	1-snap wire	6SC01
5	2	2-snap wire	6SC02
1	3	3-snap wire	6SC03
1	4	4-snap wire	6SC04
1	UA	Snapduino	
1		Snap-FTDI Cable	
1	R1	100 Ω Resistor	6SCR1
1	D1	Red LED	6SCD1
1	D2	Green LED	6SCD2

Step by Step Guide

- 1) Place the upper-left corner of the Snapduino at **C4**.
- 2) Snap component **D1** between position **A2** and **C2**.
- 3) Snap component **D2** between position **D2** and **F2**.
- 4) Snap component **R1** over the components between position **D2** and **D4**.
- 5) Snap a 4-snap wire between **A3** and **A6**.
- 6) Snap a 2-snap wire between **F4** and **F4**.
- 7) Snap a 2-snap wire over the components between **A2** and **A3**.
- 8) Snap a 1-snap wire on the component at **C2**.
- 9) Snap a 2-snap wire over the components between **C2** and **D2**.
- 10) Snap a 2-snap wire over the components between **F2** and **F3**.
- 11) Snap a 2-snap wire over the components between **E4** and **F4**.
- 12) Snap a 3-snap wire over the components between **A6** and **C6**.
- 13) Connect the **black** lead of the FTDI cable to the **GND** snap marked with a black ring on the Snapduino (*snap it over the top of any components that may already be connected to this snap*).
- 14) Connect the **green** lead of the FTDI cable to the **Reset** snap marked with a green ring on the Snapduino (*snap it over the top of any components that may already be connected to this snap*).
- 15) Connect the **yellow** lead of the FTDI cable to the **PB0** snap marked with a yellow ring on the Snapduino (*snap it over the top of any components that may already be connected to this snap*).
- 16) Connect the **white** lead of the FTDI cable to the **PB1** snap marked with a white ring on the Snapduino (*snap it over the top of any components that may already be connected to this snap*).
- 17) Connect the **red** lead of the FTDI cable to the **5V** snap marked with a red ring on the Snapduino (*snap it over the top of any components that may already be connected to this snap*).
- 18) Open the sketch for this project in the Arduino IDE and upload it to the board.
- 19) When the upload has completed the program will turn the green Led on, then the red LED and then both will be off. In this configuration, the red and green LEDs will never be on at the same time.

