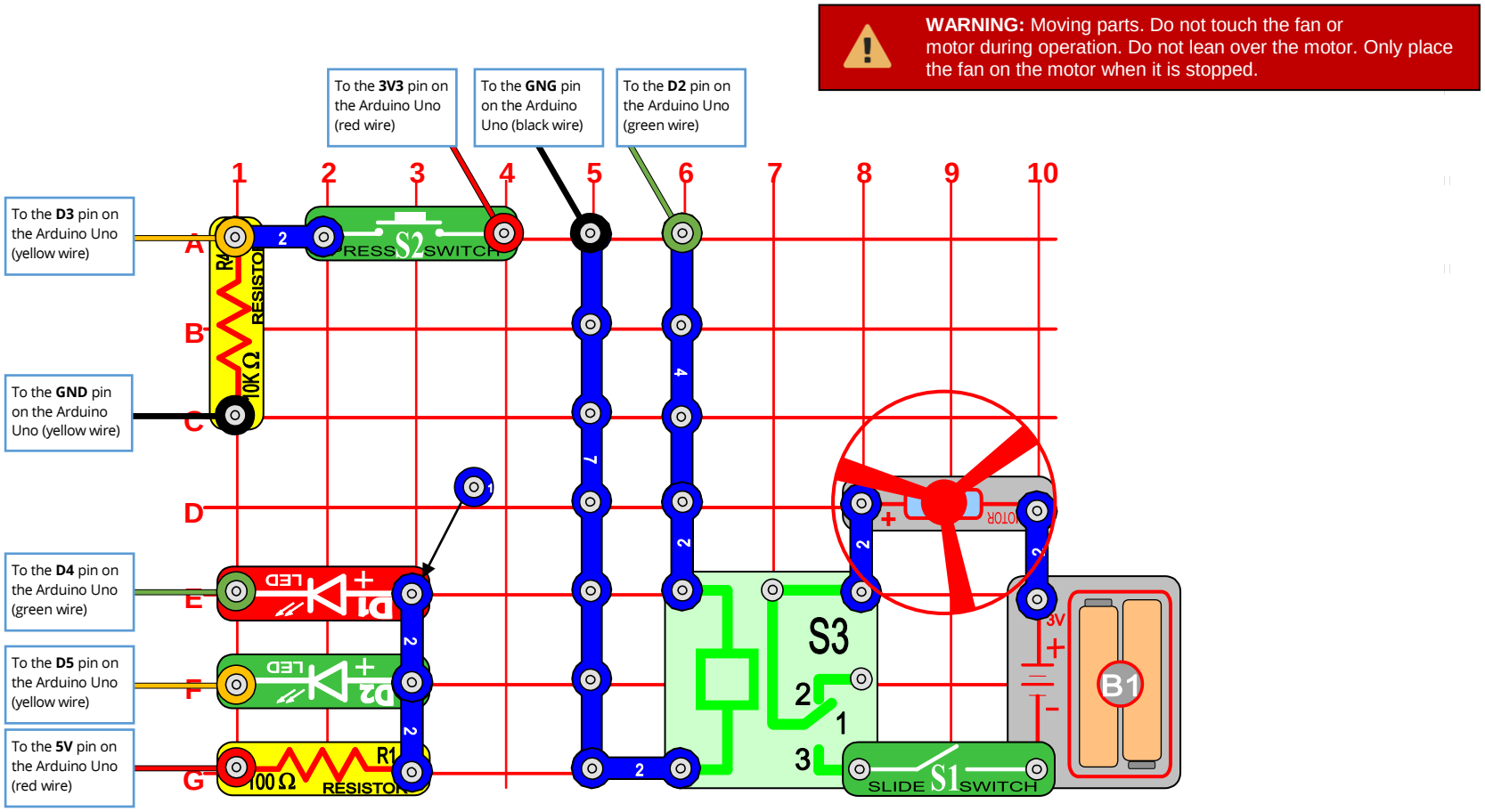
Count Down Launcher by Daniel Porrey
Snap Circuits IoT
https://www.hackster.io/snapcircuits



OBJECTIVE: Using the Arduino, monitor a button, that when pressed, will count down 3 seconds by flashing the red LED and launch the fan. The green LED will turn on when the fan is launched.

Parts List

Quantity	ID	Name	Part #
1		Base Grid Base Grid (11 x 7.7)	6SCBG
1		1-snap wire	6SC01
7		2-snap wire	6SC02
1		4-snap wire	6SC04
1		7-snap wire	6SC07
1	D1	Red LED	6SCD1
1	D2	Green LED	6SCD2
1	R1	100 Ω Resistor	6SCR1
	R4	10K Ω Resistor	6SCR4
	S1	Slide Switch	6SCS1
	S2	Press (Momentary) Switch	6SCS2
1	S3	Relay	6SCS3
1	B1	Battery Holder	6SCB1
2		AA Batteries	
8		Snap-to-Pin wire (2x red, 2x black, 2x yellow, 2x green)	SCJW10

Step by Step Guide

1) Snap the component **B1** between **E10** and **G10** placing the positive (+) terminal on E10.
2) Snap the component **S3** between **E6**, **E8**, **G6** and **G8** oriented as shown in the diagram.
3) Snap the component **M1** between **D8** and **D10** with the positive (+) terminal on **D8**.
4) Snap the component **S1** between **G8** and **G10**. Slide the switch to the "**off**" position
5) Snap the component **S2** between **A2** and **A4**.
6) Snap the component **R4** between **A1** and **C1**.

Step by Step Guide

7) Snap component **D1** between **E1** and **E3** with the positive (+) terminal on **E3**.
8) Snap component **D2** between **F1** and **F3** with the positive (+) terminal on **F3**.
9) Snap the component **R1** between **G1** and **G3**.
10) Snap the 7-snap wire between **A5** and **G5**.
11) Snap the 4-snap wire between **A6** and **D6**.
12) Snap the 1-snap wire at **E3**.
13) Snap the 2-snap wire between **D10** and **E10**.
14) Snap the 2-snap wire between **D8** and **E8**.
15) Snap the 2-snap wire between **D6** and **E6**.
16) Snap the 2-snap wire between **G5** and **G6**.
17) Snap the 2-snap wire between **F3** and **G3**.
18) Snap the 2-snap wire between **E3** and **F3**.
19) Snap the 2-snap wire between **A1** and **A2**.
20) Connect the snap end of the first **green** wire at position **A6**.
21) Plug the male pin end of the **green** wire from step 21 into the **D2** pin on the Arduino Uno board
22) Connect the snap end of the first **black** wire at position **A5**.
23) Plug the male pin end of the **black** wire from step 22 into the **GND** pin on the Arduino Uno board.

Step by Step Guide (continued)

29. Connect the snap end of the first **red** wire at position **A4**.
30. Plug the male pin end of the **red** wire from step 25 into the **3V3** pin on the Arduino Uno board.
31. Connect the snap end of the first **yellow** wire at position **A1**.
32. Plug the male pin end of the **yellow** wire from step 27 into the **D3** pin on the Arduino Uno board.
33. Connect the snap end of the second **black** wire at position **C1**.
34. Plug the male pin end of the **black** wire from step 29 into the **GND** pin on the Arduino Uno board.
35. Connect the snap end of the second **green** wire at position **E1**.
36. Plug the male pin end of the **green** wire from step 31 into the **D4** pin on the Arduino Uno board.
37. Connect the snap end of the second **yellow** wire at position **F1**.
38. Plug the male pin end of the **yellow** wire from step 33 into the **D5** pin on the Arduino Uno board.
39. Connect the snap end of the second **red** wire at position **G1**.
40. Plug the male pin end of the **red** wire from step 35 into the **5V** pin on the Arduino Uno board.
41. Download the Arduino sketch to your Arduino Uno board
42. Insert the AA batteries into component **B1** paying attention to proper polarity.
43. Slide the switch **S1** into the “on” position.

Step by Step Guide (continued)

25. Place the fan onto the motor **M1** making sure the grooves rest properly on the top.
26. Press the button **S2** on the circuit.
27. Place the fan back onto the motor and press the button again.
28. Repeat as many times as you like.

Notes

1. If the fan does not launch when the motor turns off check the placement. If it still does not launch check that you have fresh AA batteries.