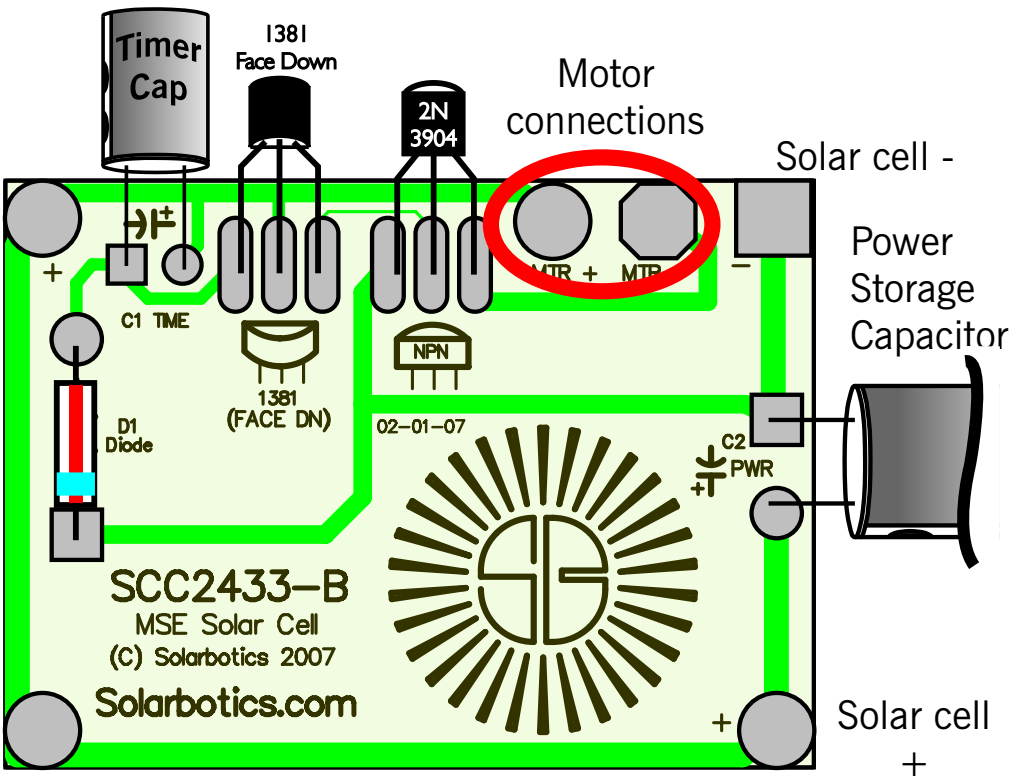
Use the Miller Solarengine circuit to make useful bursts of energy for your motor or device!

NPN - 2n2222 or 2n3904 transistor
C1 - 2200μF or larger electrolytic power storage capacitor
C2 - 1μF to 47μF discharge duration time capacitor
D1 - 1N914-style signal diode (1N914)
Connect your load (motor/LED/etc) to the pads “Mtr -” and “Mtr +”

Performance Tips:
Bigger C1 = more power stored, but means longer recharge time
Bigger C2 = more time MSE stays on, but needs more time to recharge
Low 1381 trigger (C=2.2V) will activate MSE sooner, but with less vigor than a 1381-U (4.8V)

Recommended default settings (please experiment!):
Short bursts / quick recharge (~3sec): C1=4700μF, C2=4.7μF, 1381E
Long bursts / slow recharge (~2min): C1=0.33F, C2=22μF, 1381G



SOLARBOTICS® Ltd
3740D 11A Street NE, Suite #101, Calgary, AB Canada T2E 6M6, 1-866-276-2687
Made in China