

## Collector Circuit Theory of Operation

1. Bottom Circuit is for example only, showing a Bedini SGC coil and trigger system. In my actual test circuit there is an eight wrap coil generating a significant amount of back emf to the capacitors.
2. R2 sets the charge level to the capacitors. The voltage spikes from the Bedini SGC will easily charge the capacitors to 200 volts. Warning: You do not want to dump that level of voltage to the battery because the MOSFETS will blow along with a few other components. It is suggested you only pump the capacitors voltage level up to a maximum of 50 volts. Depending on the size of the capacitors, you could easily exceed the 11 amp spec on the IRF9640.
3. R4 sets the discharge level for the capacitors. The difference between the R2 and R4 settings represents the hysteresis window that will allow current flow through the MOSFETS to the battery.
4. The LF353 dual op amps are simply used as comparators for setting the charge and discharge levels from the capacitor to the battery.
5. CD4001 is set to act as a CMOS latch that keeps the MOSFETS on, (meaning conducting), while discharging the capacitors to the battery.
6. Q1 is simply a trigger circuit for the P-channel MOSFETS with a LED that is turned on during the capacitor discharge time to the battery.
7. Doubling up on the IRF9640 P-channel MOSFETS beefs-up the current capability while charging the battery.
8. D2 is used to prevent the Battery from forcing the MOSFET's drain to sit at 12.7 Volts. I found during testing and development that until I added the diode I easily popped the MOSFET. I burnt out 4 MOSFETS during development and the diode put an end to that annoyance.

Using a single battery to run both the Bedini SGC circuit and Collector Circuit will work just fine. In essence you will have a complete closed loop system. If working with a big battery you could hang an inverter off the battery while pulse charging it at the same time you are running whatever is connected to the inverter. You may ask will the SGC produce enough energy to make a self sustaining power unit. My test, at this time, have revealed the battery slowly declines. However, there are other techniques for getting energy pulses to pump up the capacitors that in turn charges up the battery that are free.

I am told a small amount of energy can be captured from a 'dipole' which is a free energy source. The key to a closed loop self sustaining energy system with this Collector Circuit is to simply figure out a way to capture any kind of pulse that has a higher voltage value than the battery you are trying charge. I would like to suggest you research how they charged the old telegraph batteries back in the days when morse-code and single wire telegraph systems was that era's internet of the day.