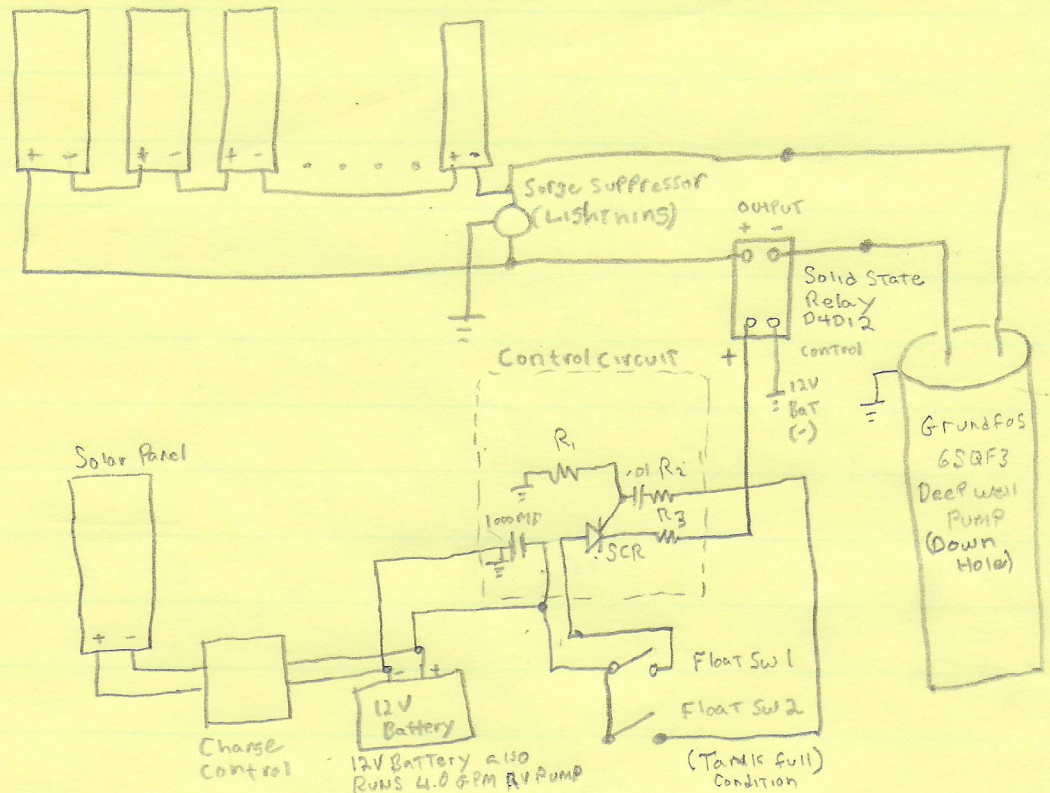
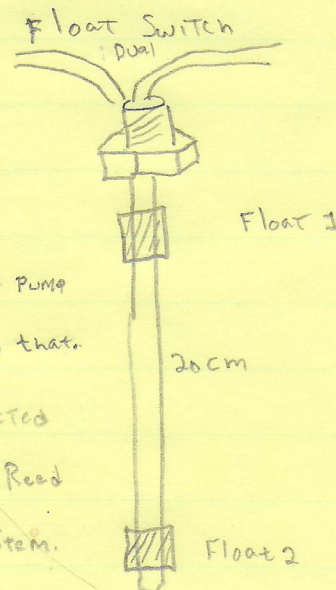


Well Pump Power and Water Tank Level Control

Solar Array 9 Panels 50W 20VDC Series



My own design for Pump Control. Dual float switch provides Hysteresis, such that the pump isn't running (ON-off ON-off) Although the pump literature says it's OK to do that. The floats have movement restricted to only $\frac{1}{4}$ " or so up and down. Reed switches located inside sealed stem.



How it works...

Tank is Full, both switches are open.

When the tank begins to empty, Float Switch 1 closes providing 12Vdc to the anode of the SCR. The SCR will NOT conduct until it receives a second 12 volt signal to the gate, provided by Float Switch 2. When the water level lowers further, that triggers the SCR which begins to conduct, sending

12 volts to the control terminal of the Solid State Relay. The Solid State Relay then allows current to flow from the solar panels to the well pump which begins to fill the tank. As the tank fills, Float Switch 2 opens turning off the trigger voltage to the SCR. However, the SCR will continue to conduct until the tank fills, opening Float Switch 1 which interrupts current flow through the SCR, turning it and the relay off.