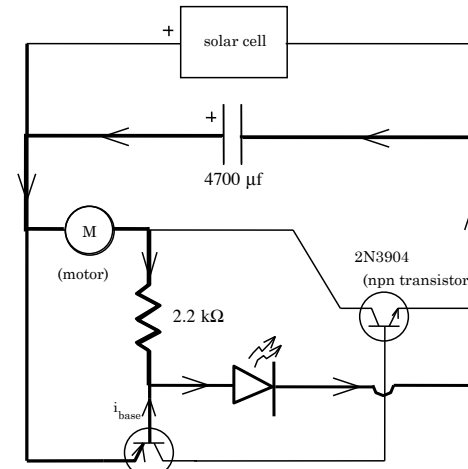


# SOLAR ROBOT

The idea, simply, is to accumulate charge on a capacitor using a solar cell as power source, then to use a LED and transistors as switches to motivate the capacitor discharge through a motor.

1.



base current materializes when current flows through the LED circuit

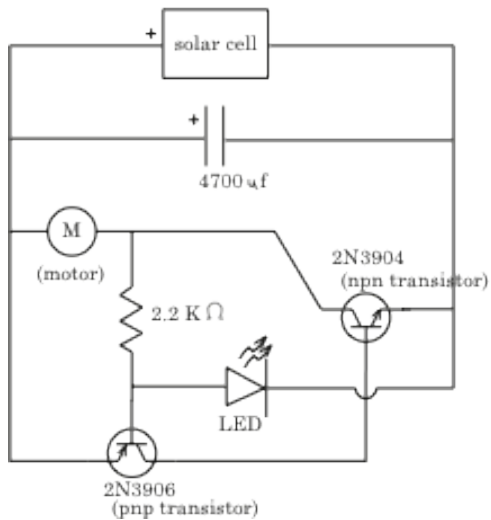
pnp transistor

current flows through the LED when its voltage is .6 volts

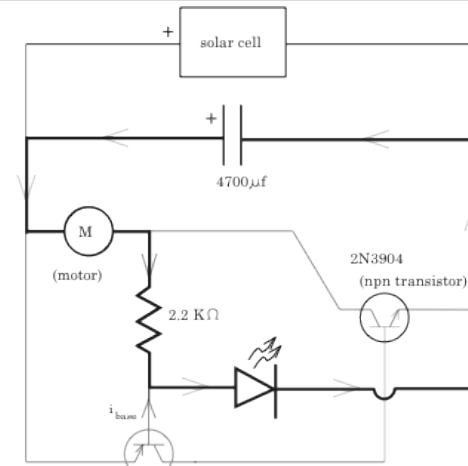
The cap charges. At some point, the voltage across the LED voltage hits .6 volts and current flows through the LED circuit. Current will also flow from the base of the pnp transistor leaving that base electrically negative (relative to its collector). This will turn the pnp transistor "on."

3.

SOLAR ROBOT CIRCUIT



2.



base current materializes when current flows through the LED circuit

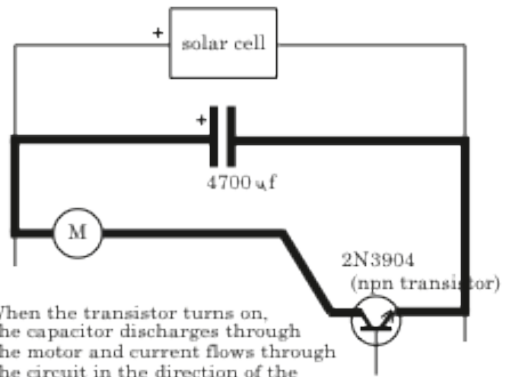
pnp transistor

current flows through the LED when its voltage is .6 volts

The cap charges. When the LED voltage hits .6 volts, current will flow through the LED circuit. Current will also flow from the base of the pnp transistor leaving that base electrically negative (relative to its collector). This will turn the pnp transistor "on."

4.

### SOLAR ROBOT CIRCUIT



When the transistor turns on, the capacitor discharges through the motor and current flows through the circuit in the direction of the transistor's arrow.