

# BEAM PHOTOPOPPER CIRCUITS

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Here, I've attempted to gather together some useful photopopper circuits.

Note that most photopopper circuits are based on just a pair of solar engine circuits wired together ("back to back). This means you can get additional circuits by replacing solar engines in the diagrams below with other solar engine circuits. Generally in such cases, it's good to incorporate a variable resistor in your circuit so that you can "tune" the two engines for balanced behavior (else, due to manufacturing variances in component values, your photopopper will tend to move in curves).

Locally, I've got pages on 7 basic types of photopopper circuits:

- Basic 1381-based photopopper, and a 1381-based photopopper with touch sensors
- A 555-based photopopper design
- Two 74\*14-based photovore designs
- Several 74\*240-based photovore designs

- The FRED photopopper
- The Miller photopopper
  - Timeless, ubiquitous and simple; 1381-based photovore with turning switches.
  - Fairly sophisticated 74\*240-based photovore with emergent behavior.
  - Bicore-based design with reverse; uses 74\*240 bicore and 74\*245 motor driver.
  - Incorporating the Suneater IV SE; photos, schematic, PCB design.
  - Ucoba -- a photovore with emergent behavior (based on the BEAMAnt 74\*240-based circuit).

Source: [http://www.solarbotics.net/library/circuits/bot\\_popper.html](http://www.solarbotics.net/library/circuits/bot_popper.html)