

Solar space heater design through used beer /cold drink cans.

- Space heating achieving interior thermal comfort in a cold climate.
- What is space heating?
- Technical term for providing heat to raise the internal environmental temperature.
- Space heating can be achieved with stand-alone heaters, e.g. open fire places: local heating
- More efficiently achieved with a single heat source which distributes heat round the building using a heat.
- “Laws” of thermodynamics- Heat flows from a hot body to a cold body until the two are at equal temperatures – Understanding and controlling heat flow is the key to space heating design.
- This solar space heater design uses beer soda cans to increase the surface area for heat transfer inside of it, and in its most basic design, uses no external power to move the air.
- Double-glazed glass or polycarbonate panels make up the front of the device, allowing the sun’s rays to enter it while restricting heat loss to the outside air, and the box is also insulated for more efficiency. When exposed to the sun, the air inside the solar heater begins to warm, and as it does, it rises to the top of the box and can be ported directly into the house.
- Space heating through empty beer/cold drink cans. The cans are needed to assemble the metal heating tubes, air is circulated in these tubes and air becomes heated up through solar energy.