

How to Build a DIY Solar Air Heater from Old Soda Cans

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Fair Companies/Video screen capture




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Solar space heating is tricky. Air is harder to keep warm than water, and while most of us need a shower on a hot day—we tend to want space heating when the sun is not doing enough for us. Nevertheless, from a [Mad Max style partially solar heated home](#), through a [DIY solar heater from old campaign signs](#) (yeah, politics and hot air...) to a [soda can solar panel](#), we've seen plenty of attempts at harnessing the rays of the sun to actively heat the air inside our homes. Here the folks at [Fair Companies](#) present one Seattle man's attempt at heating his home studio with soda cans. (The video was shot on a phone, so please pardon picture quality.)

Supplies:

- 275 aluminum cans.
- 3 - 8 ft. 2x4s.
- 4 ft. x 8 ft. x 1/2 in. sheet of plywood.
- High temperature silicon.
- 4 ft. x 8 ft. sheet of Plexiglas or Lexan.
- A can of heat-resistant flat black spray paint.
- Plastic tubing.
- Drill Press with wide drill bits.
- Screws.
- Air Blower (optional).

A person is shown pouring liquid from a can into a red bucket. The bucket is filled with many small, clear plastic bottles or caps. The person is wearing a blue shirt and is using a yellow-handled tool to assist with the pouring.

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Peter Rowan left his job as a self-described “corporate weenie”, and instead took up teaching, writing and converting a shed into a reclaimed writer’s studio. Because the studio was off-grid, electric space heating was not an option. So he set up a simple soda can space heater, using fans running off his solar panels to help channel the air.



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Rowan is transparent about his own gaps in knowledge on the thermodynamics of solar space heating, and shares the ups and downs of his experiment. (Putting a panel that relies on convection on a relatively flat roof was probably not the smartest of ideas.) But once the installation was complete, he does feel like even on a cold, cloudy day he is getting a head start on heating the space compared to the ambient temperature outside.

Full instructions on [building a solar space heater here](#). I'd love to hear from anyone with ideas on how to improve this design.

YouTube video on building a solar space heater. <https://youtu.be/nuxanLdtwZQ>
