Heating-cooling system X04334_en

Design a circuit that controls a heating-cooling system. The system has two sensors that indicate when the temperature is too high (*hot*=1) or too cold (*cold*=1). The sensors will never be at 1 simultaneously.
If the temperature is too hot, the cooler must be activated (*cooler*=1). If the temperautre is too cold, the heater must be activated (*heater*=1).

Specification

module *heater_cooler* (*hot*, *cold*, *heater*, *cooler*);
  input *hot*, *cold*;
  output *heater*, *cooler*;

Input

- *hot* is the input that indicates when the temperature is too hot.
- *cold* is the input that indicates when the temperature is too cold.

Output

- *heater* is the output that activates the heater.
- *cooler* is the output that activates the cooler.

Problem information

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