```yaml
esphome:
  name: main_floor_hvacmon
  platform: ESP8266
  board: d1_mini

wifi:
  ssid: "***your SSID here ***"
  password: "*** your password here ***"

  # Enable fallback hotspot (captive portal) in case wifi connection fails
  ap:
    ssid: "***select an SSID***"
    password: "***select a password***"

captive_portal:

# Enable logging
logger:

# Enable Home Assistant API
api:

ota:
binary_sensor:
# Create four input binary sensors to detect the four HVAC signals:
#   Cooling, Heat, Heat_secondary, and Fan.
  - platform: gpio
    name: "Cooling_main"
    pin:
      number: D1
      inverted: True
      mode: INPUT_PULLUP
  - platform: gpio
    name: "Heating_main"
    pin:
      number: D7
      inverted: True
      mode: INPUT_PULLUP
  - platform: gpio
    name: "HeatingSecondary_main"
    pin:
      number: D6
      inverted: True
      mode: INPUT_PULLUP
```

```yaml
  - platform: gpio
    name: "Fan_main"
    pin:
      number: D5
      inverted: True
      mode: INPUT_PULLUP
#
# This allows Home Assistant to override and disable the cooling, which is
#  useful if you want to implement algorithms to minimize peak electrical
#  usage by temporarily turning off your A/C.
switch:
  - platform: gpio
    pin:
      number: D4
      inverted: True
    id: cooling_defeat
    name: "Cooling_defeat_main"
    # This actives the 'enable_relay' signal, defined below
    on_turn_on:
      then:
        - output.turn_on: enable_relay
    on_turn_off:
      then:
        - output.turn_off: enable_relay
#
# This is a redundant signal for controlling the relay. The idea is that
both
#  'cooling_defeat' and 'enable_relay' must be active in order to actually
#  drive the relay. The idea is to minimize the chances of inadvertently
#  disabling the A/C momentarily.
output:
  - platform: gpio
    pin:
      number: D3
      inverted: False
    id: enable_relay
#
# This is the in-built status LED function which flashes during
#  boot and signals errors, but is off during normal operation.
status_led:
  pin:
    number: D8
    inverted: False
```