POWER OFF PRINTER - Manta M8P Control Board
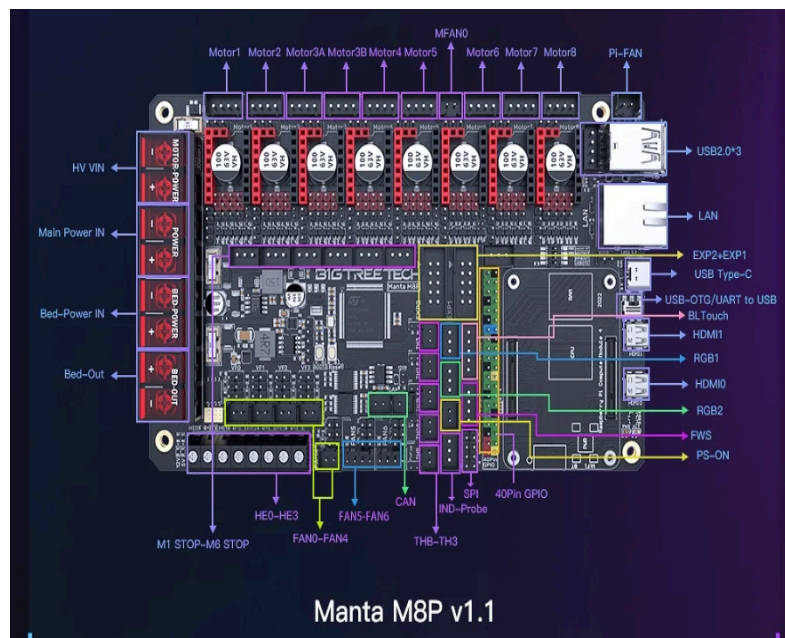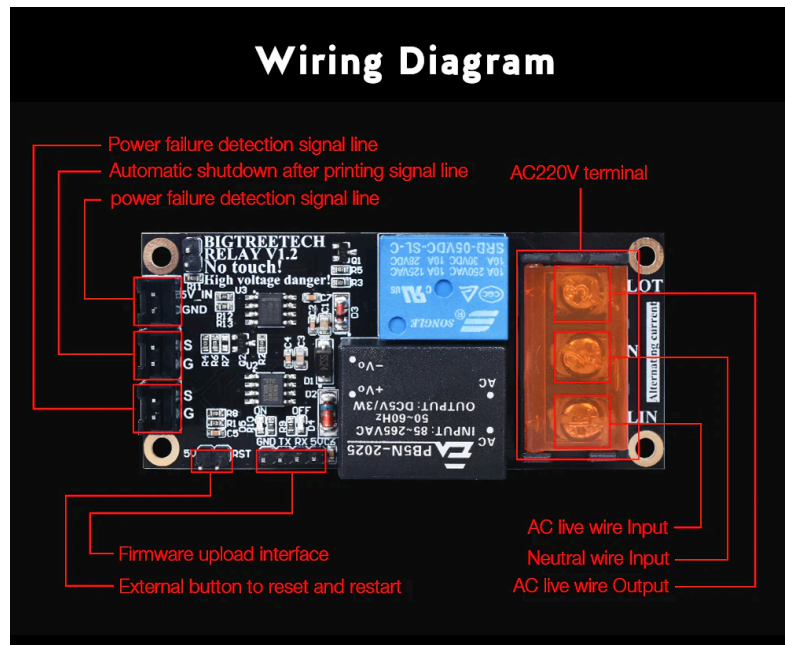
This setup guide is for the BTT Manta M8P control board and the BTT Power Relay v1.2

1. Hardware

Print this case for the BTT power relay
Power relay case

Install the relay and connect the center **"Automatic shutdown"** pins on the relay board to pin **PC3 PS-ON** on the M8P board:

2. Firmware

Set your idle_timeout in printer.cfg:

```
[idle_timeout]
gcode:
    RESPOND TYPE=echo MSG="No operations in 10min!"
    TURN_OFF_HEATERS
#   A list of G-Code commands to execute on an idle timeout. See
#   docs/Command_Templates.md for G-Code format. The default is to run
#   "TURN_OFF_HEATERS" and "M84"
timeout: 600 ; 600 = 10 minutes
```

Add to moonraker.cfg:

```
[power Printer_plug]
type: klipper_device
object_name: gcode_macro POWER_OFF_PRINTER
```

Add to printer.cfg:

```
#PS Power control switch
[output_pin Printer_plug]
pin: PC3
```

Mainsail interface:

In Mainsail, go to **Interface settings -> UI Settings -> Printer Power Device** and select the new device in the dropdown

Add to macros.cfg:

```
[gcode_macro POWER_OFF_PRINTER]
gcode:
  {action_call_remote_method("set_device_power",
                device="Printer_plug",
                state="off")}


[delayed_gcode POWER_OFF_PRINTER_CHECK]
gcode:
  {% if printer.idle_timeout.state == "Idle" or printer.idle_timeout.state == "Ready" %}
    {% if printer.extruder.temperature < 50.0 and printer.heater_bed.temperature < 50.0 %}
      {% if printer.extruder.target == 0.0 and printer.heater_bed.target == 0.0 %}
```

```
              UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK DURATION=0
              _POWER_OFF_PRINTER
          {% else %}
              UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK DURATION=2
          {% endif %}
      {% else %}
          {% if printer.idle_timeout.state == "Printing" %}
              UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK DURATION=0
          {% else %}
              {% if printer.extruder.target == 0.0 and printer.heater_bed.target == 0.0 %}
                  UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK DURATION=2
              {% else %}
                  UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK DURATION=0
              {% endif %}
          {% endif %}
      {% endif %}
  {% endif %}

[gcode_macro ACTIVATE_POWER_OFF]
gcode:
    UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK_ACT DURATION=60

[gcode_macro DEACTIVATE_POWER_OFF]
gcode:
    UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK_ACT DURATION=0

[delayed_gcode POWER_OFF_PRINTER_CHECK_ACT]
gcode:
  {% if printer.idle_timeout.state == "Idle" or printer.idle_timeout.state == "Ready" %}
    UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK DURATION=30
  {% else %}
    UPDATE_DELAYED_GCODE ID=POWER_OFF_PRINTER_CHECK_ACT DURATION=60
  {% endif %}
```