# ZONESTAR

How to install and use Filament run out detector

Ver: 1.0

Installation

1. Connect filament run out detector to E-SW connector or Z+ connector of **control board** according to wiring diagram in installation/user manual.

2. Preheat nozzle, and set temperature to 180~200 degrees.

3. Let **filament** through filament run out detector (for the direction of entry , please refer to the arrow on the detector), then insert filament into extrusion feeder and until filament reach the nozzle. Feed filament manually until you can see it is flowed out from nozzle steadily.

4. Print a gcode file from the SD card.
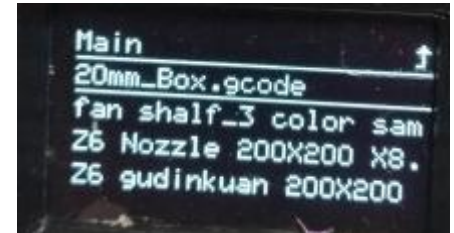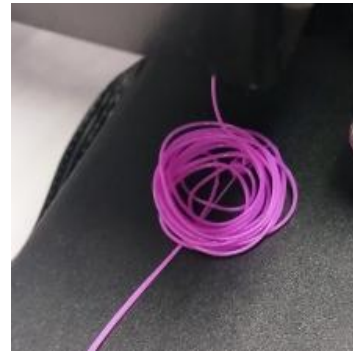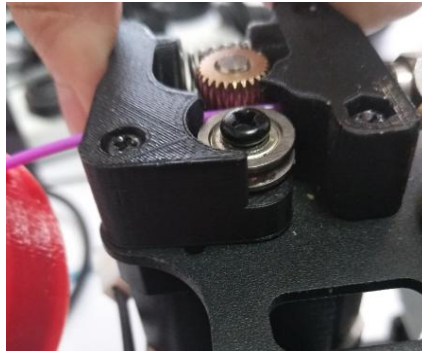
| Filament through the filament run out detector | Filament enter the extrusion feeder | Wair filament is flowed out from nozzle | Print a gcode file |

Note: If the filament run out detector doesn't work, you need to check wiring or upgrade the firmware of control board.

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1. Once filament is run out, printing will be paused, and filament will be returned from extrusion feeder automatically .

2. Waiting for the returning is finnished , and pulled out filament from the extrusion feeder. Insert a new filament roll into the extrusion feeder until you can see it in the filament guide tube, press the button on control panel, printer will feed the filament into HOTEND automatically.

3. Note whether the filament is flowed out from the nozzle. If not, continue to feed the filament by executing "Extrude more" command on LCD MENU.

4. Use tweezers to remove filament from nozzle and then select "Resume print" to continue printing.

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