

Fusion3

EDGE 3D Printer

PHYSICAL SYSTEM DESCRIPTION

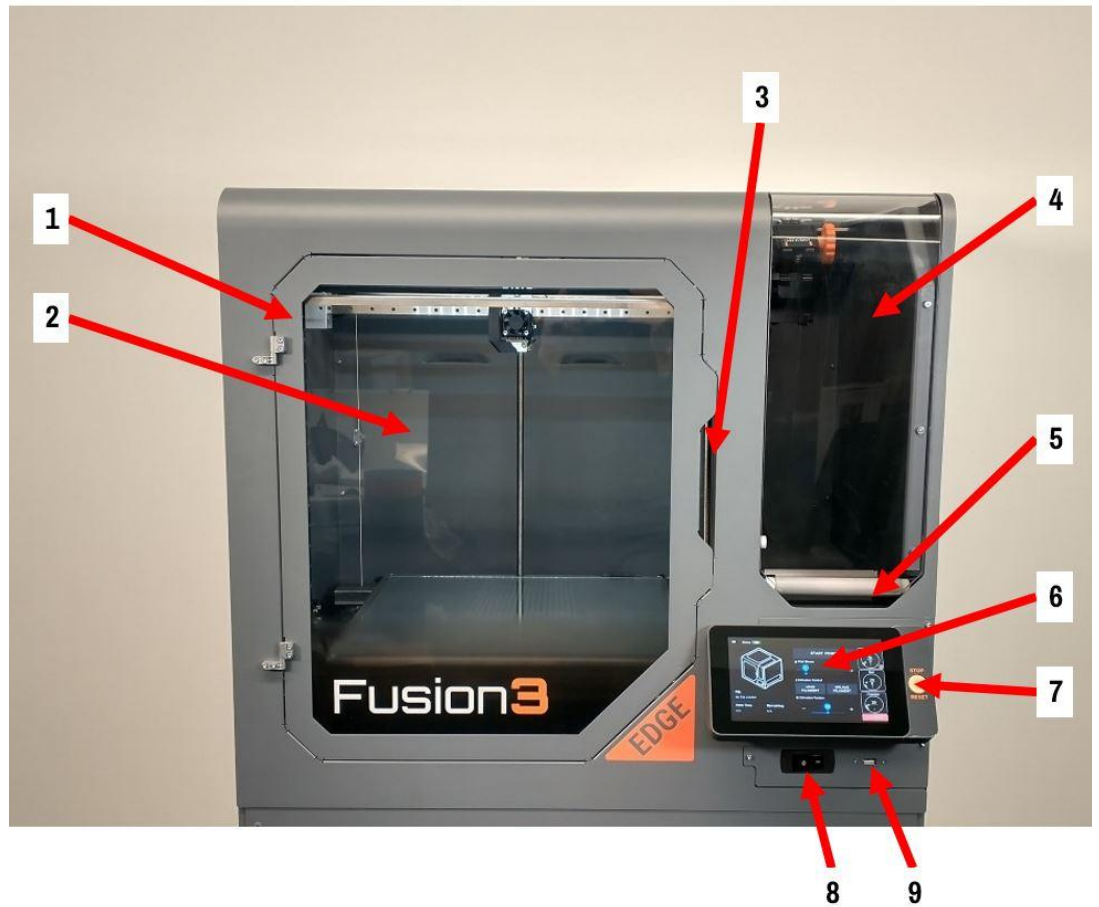
Revision 3/9/2022

PHYSICAL SYSTEM DESCRIPTION

An introduction to the parts of your EDGE 3D printer

FRONT

1. Main door (AKA print chamber door)
2. Print chamber
3. Main door grab point
4. Filament bay door
5. Filament bay door lift point
6. Control panel
7. Stop/reset button (equivalent to e-stop button)
8. Main power switch
9. USB port



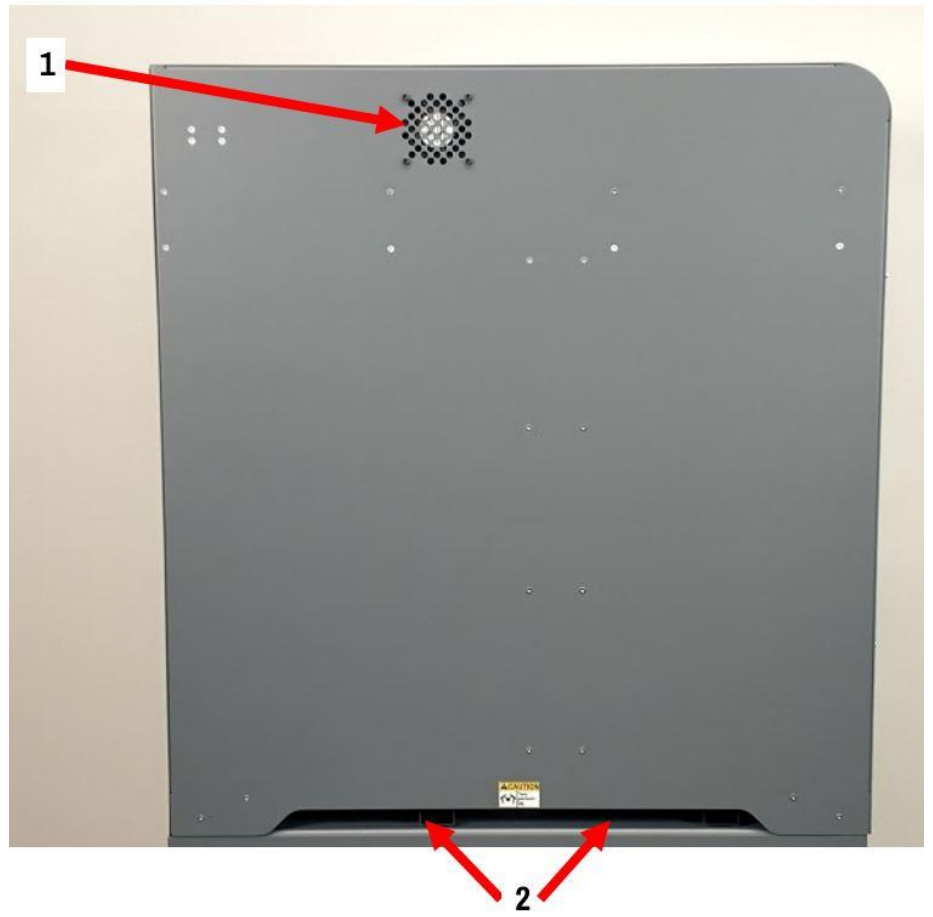
RIGHT SIDE

1. Electronics bay service door
2. Lift point



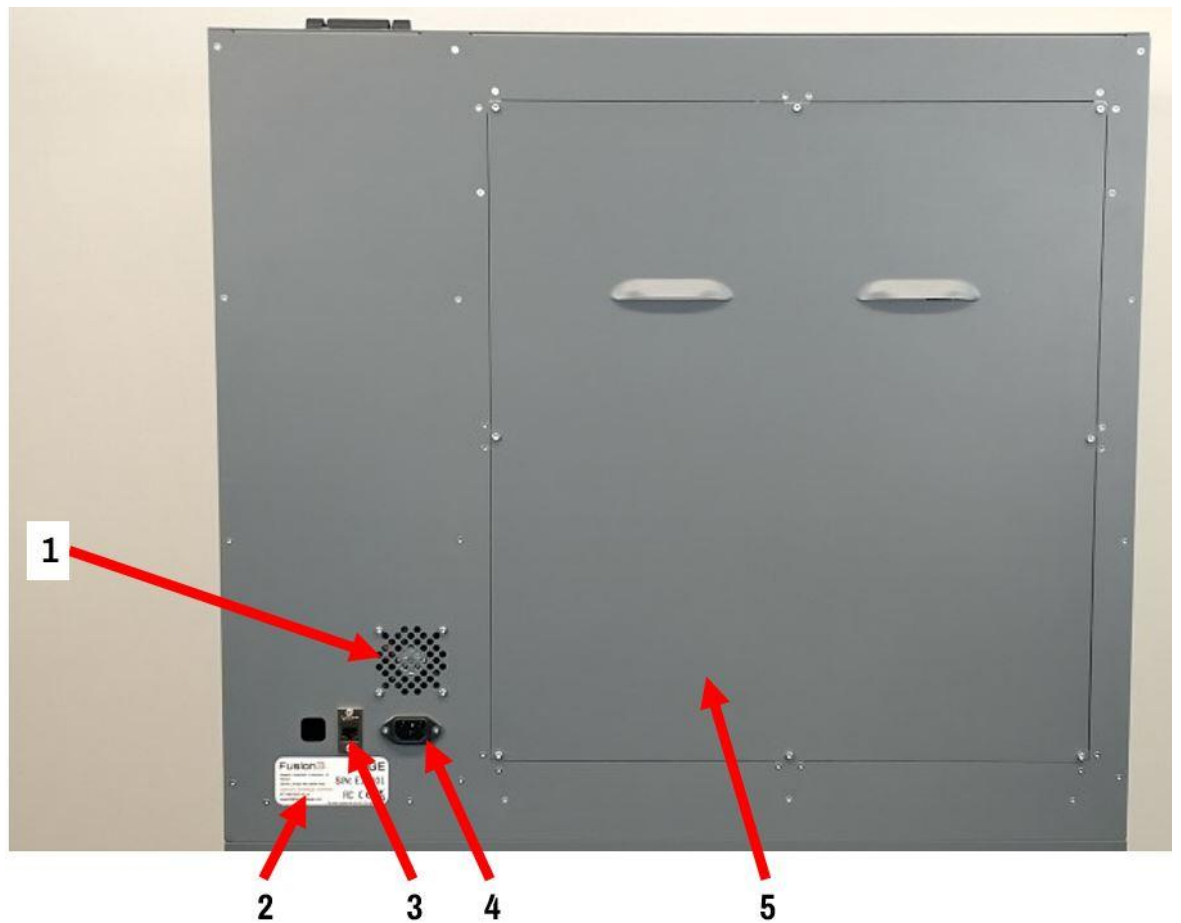
LEFT SIDE

1. Print chamber exhaust fan
2. Lift point

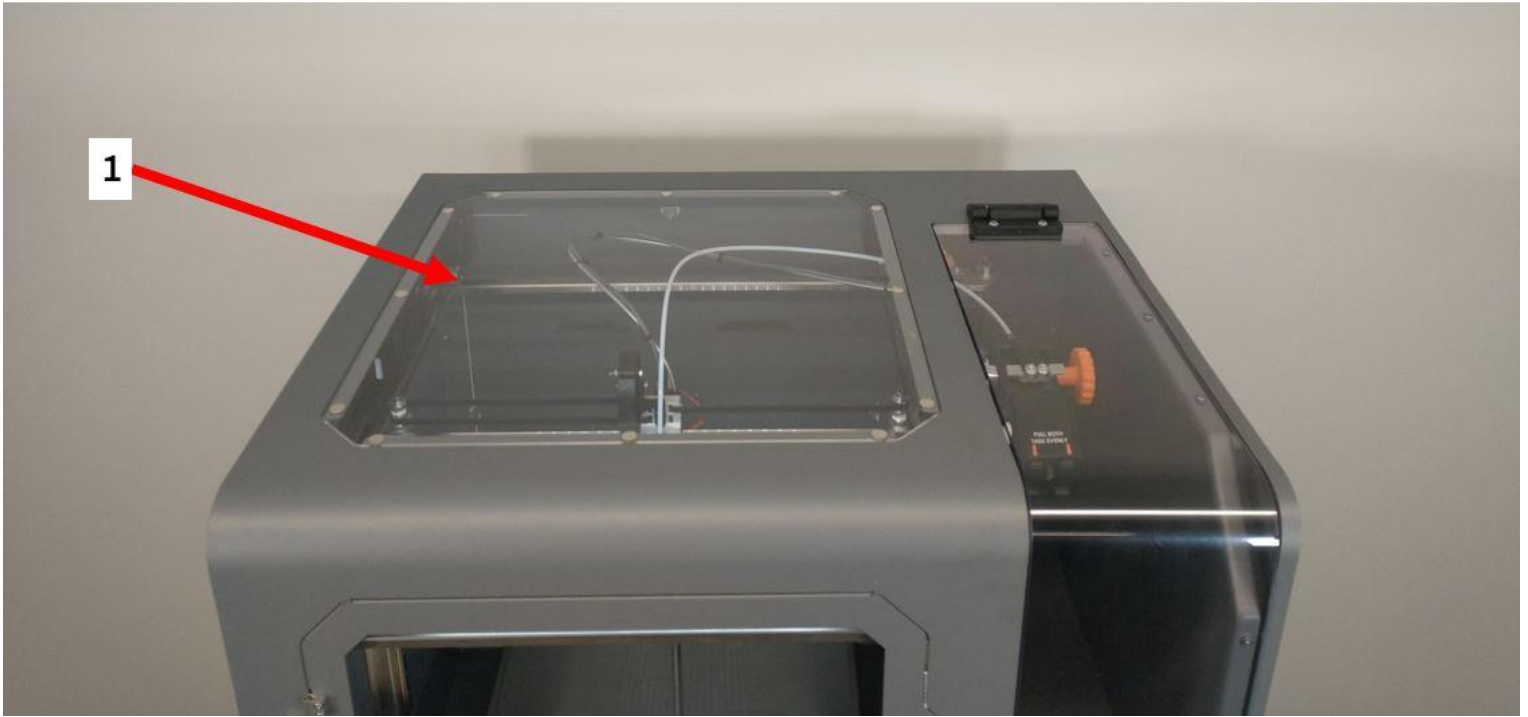


BACK

1. Electronics bay exhaust fan
2. Power cord inlet
3. Ethernet socket
4. Serial number tag
5. Rear service door



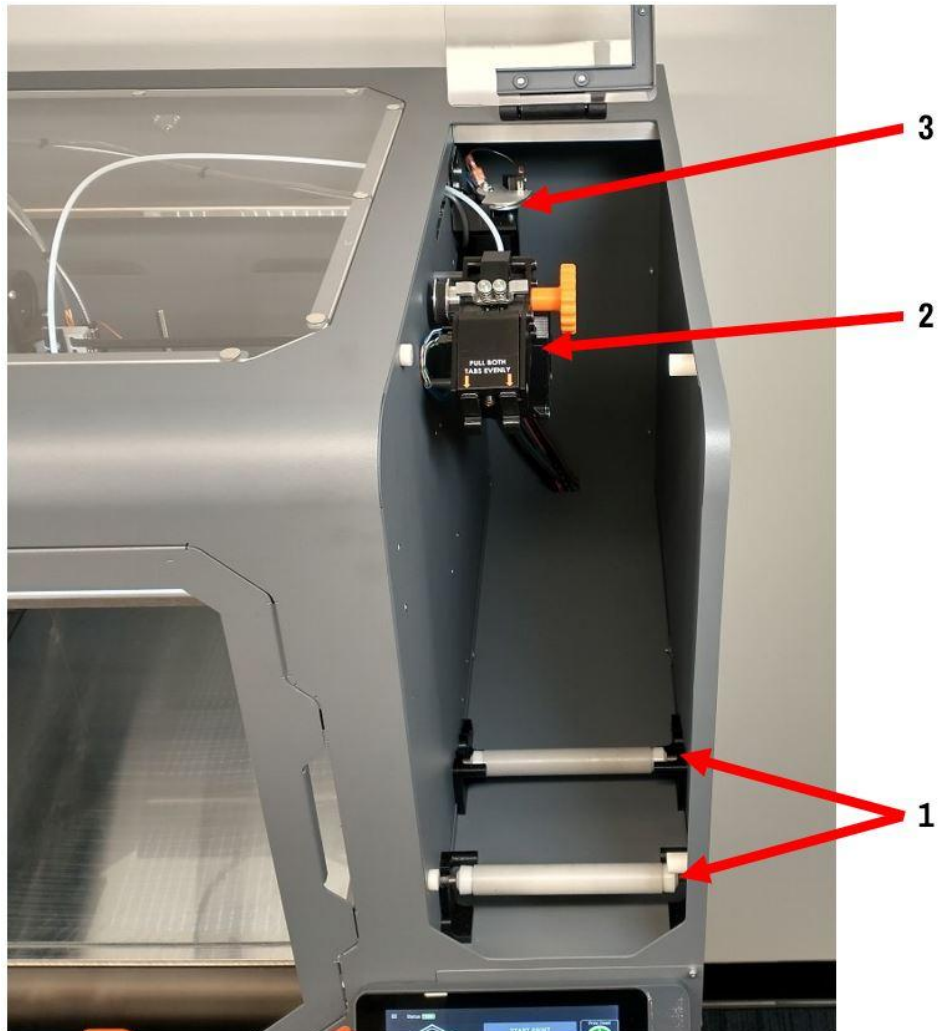
TOP



1. Removable top window

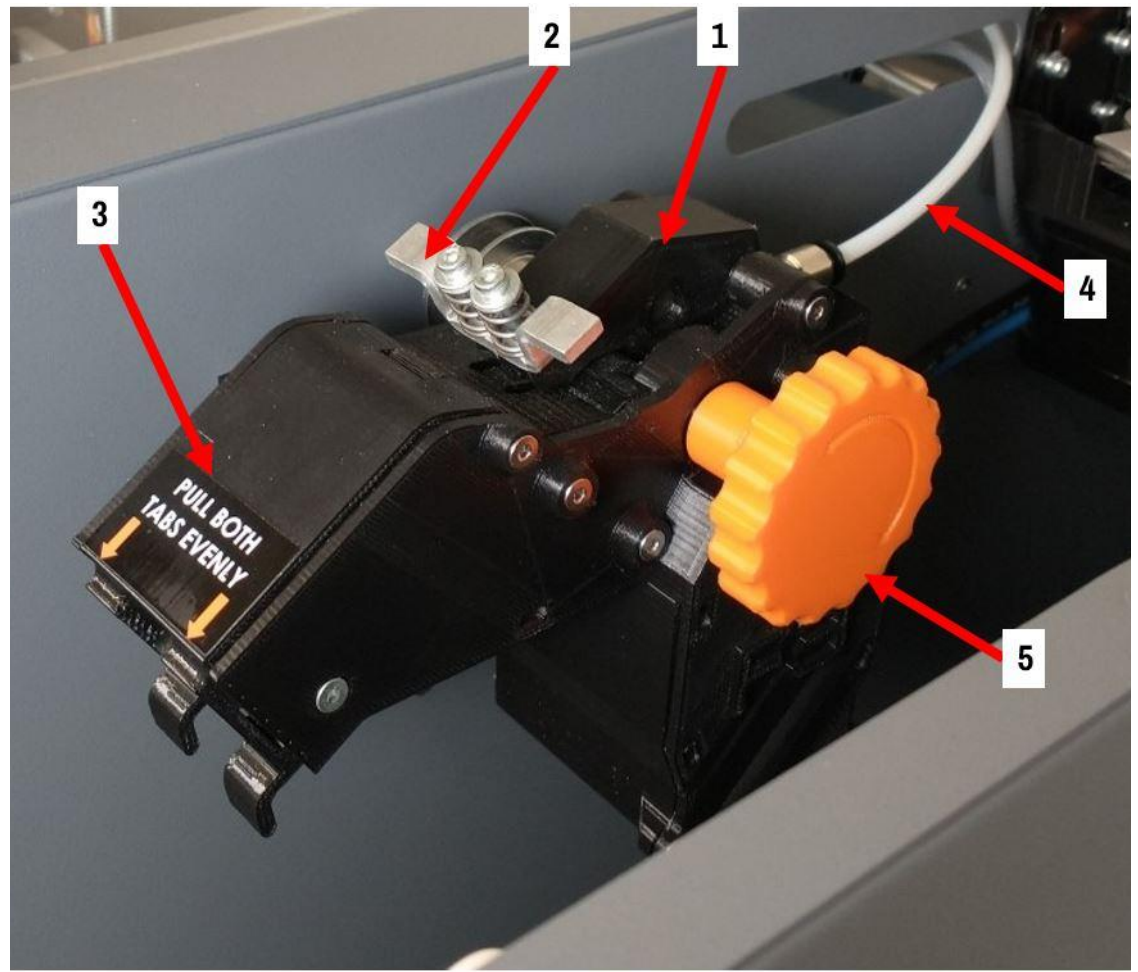
FILAMENT BAY DETAIL

1. Filament support rollers
2. Extruder (AKA Extruder cold end)
3. Bed probe drive motor assembly



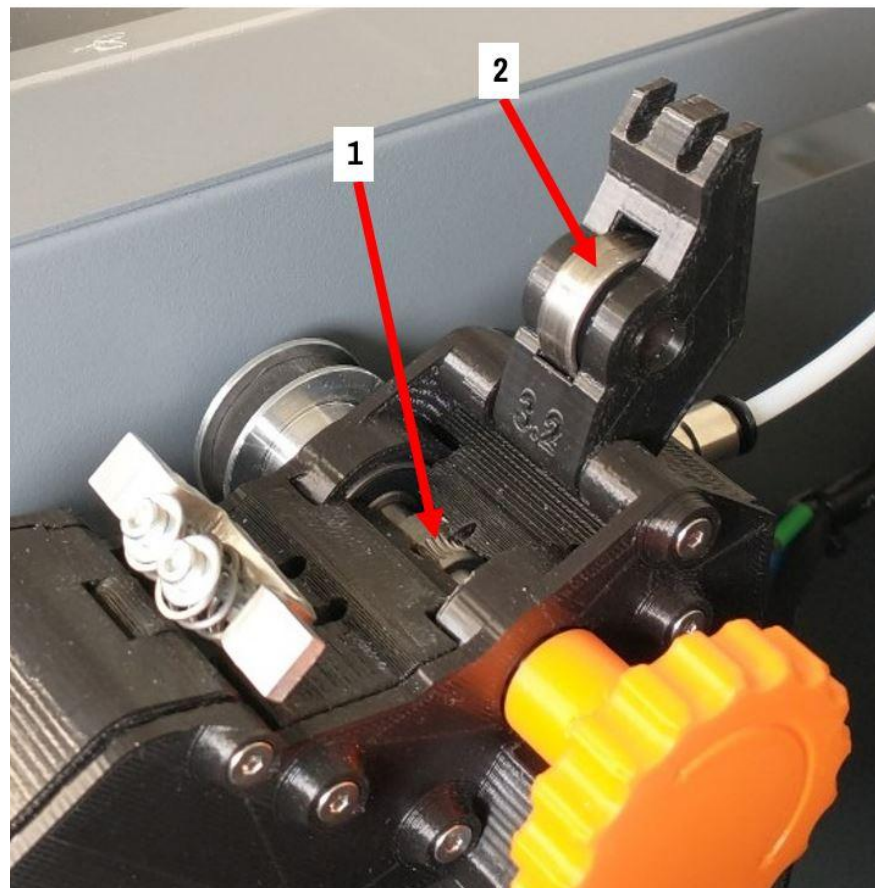
EXTRUDER

1. Feed section & idler bar
2. Spring grabber (use to release idler bar)
3. Filament monitoring section
4. Filament bowden tub
5. Manual advance knob



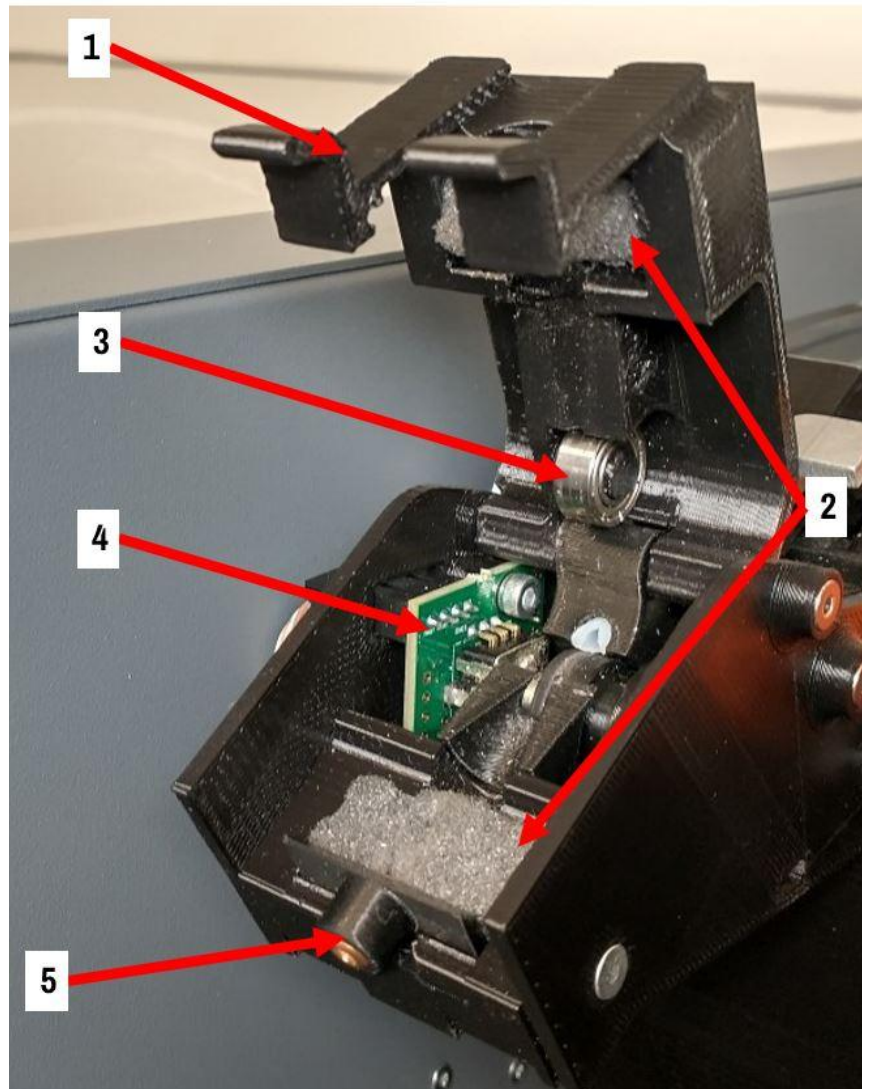
Feed Section Detail

1. Feed gear
2. Idler bar (open position)



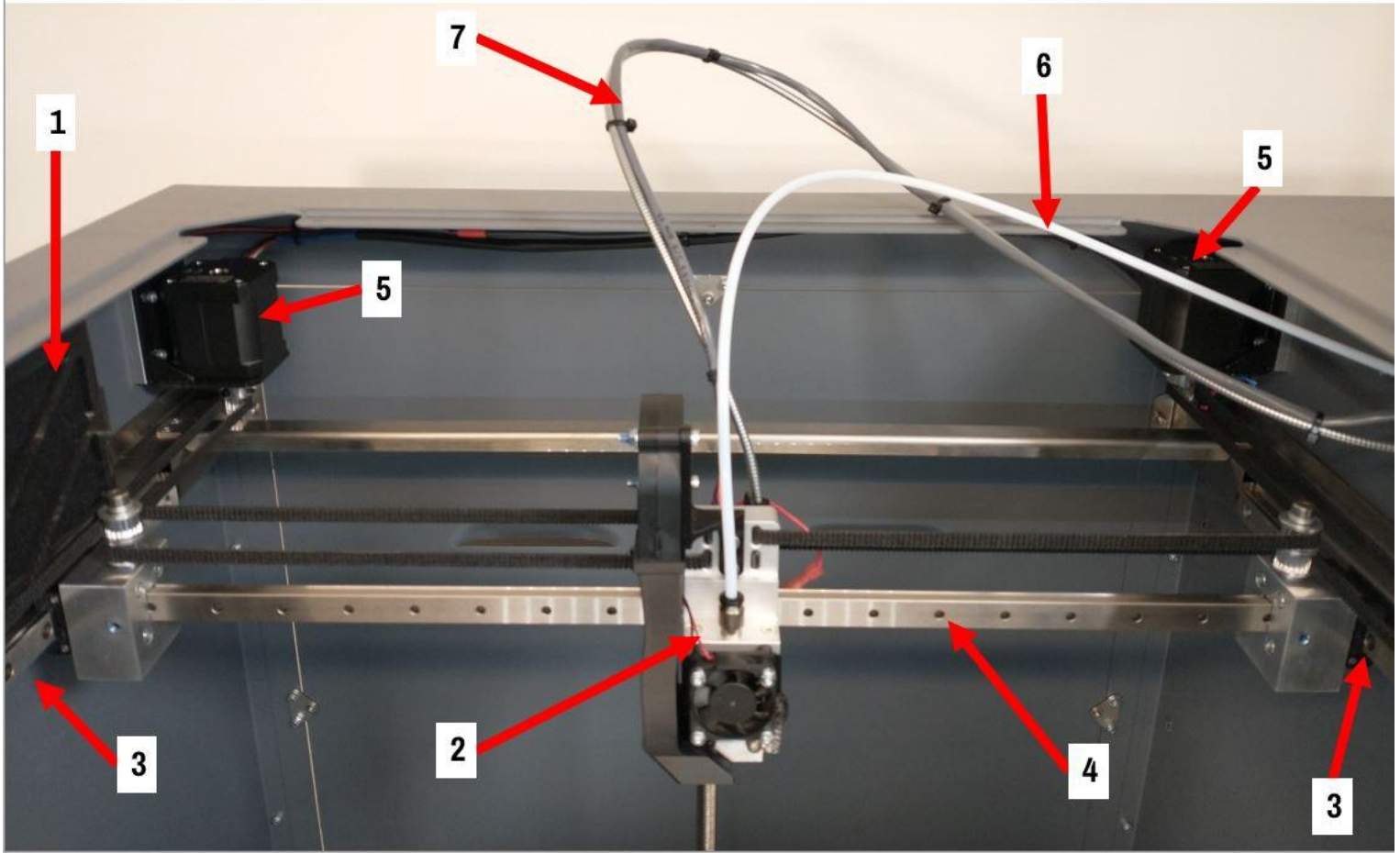
Filament Monitoring Section Detail

1. Filament monitor door (open position)
2. Filament wipers
3. Filament monitor idler bearing
4. Filament monitor PCB
5. Filament inlet & inlet wear eliminator



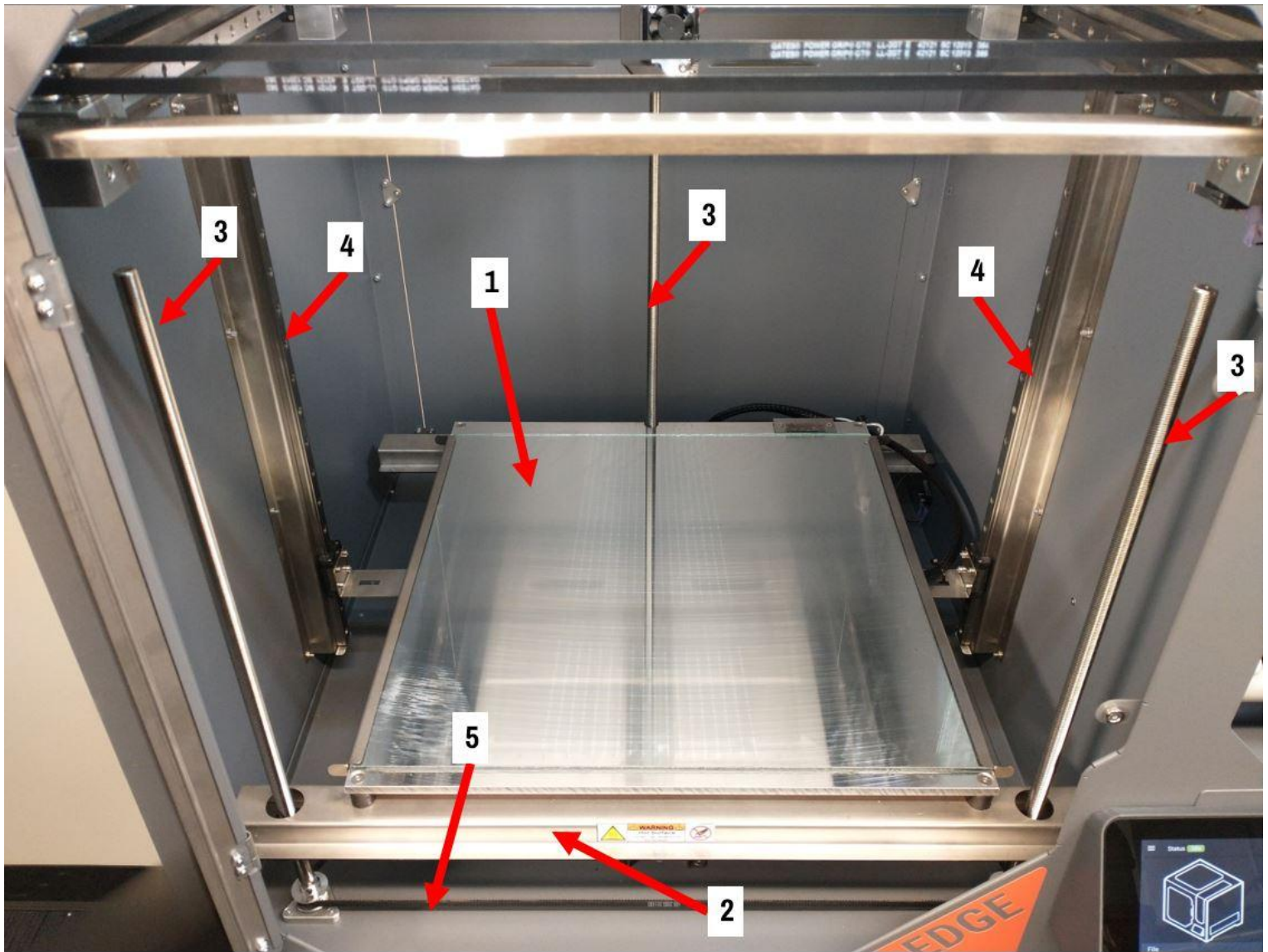
PRINT CHAMBER DETAIL

Upper print chamber:



1. Print chamber exhaust fan & filter assembly
2. Print head assembly
3. Y axis rails (2)
4. X axis rail
5. XY motors (2)
6. Bowden tube (filament feed tube)
7. Bed probe tube & print head wiring harness

Lower print chamber:

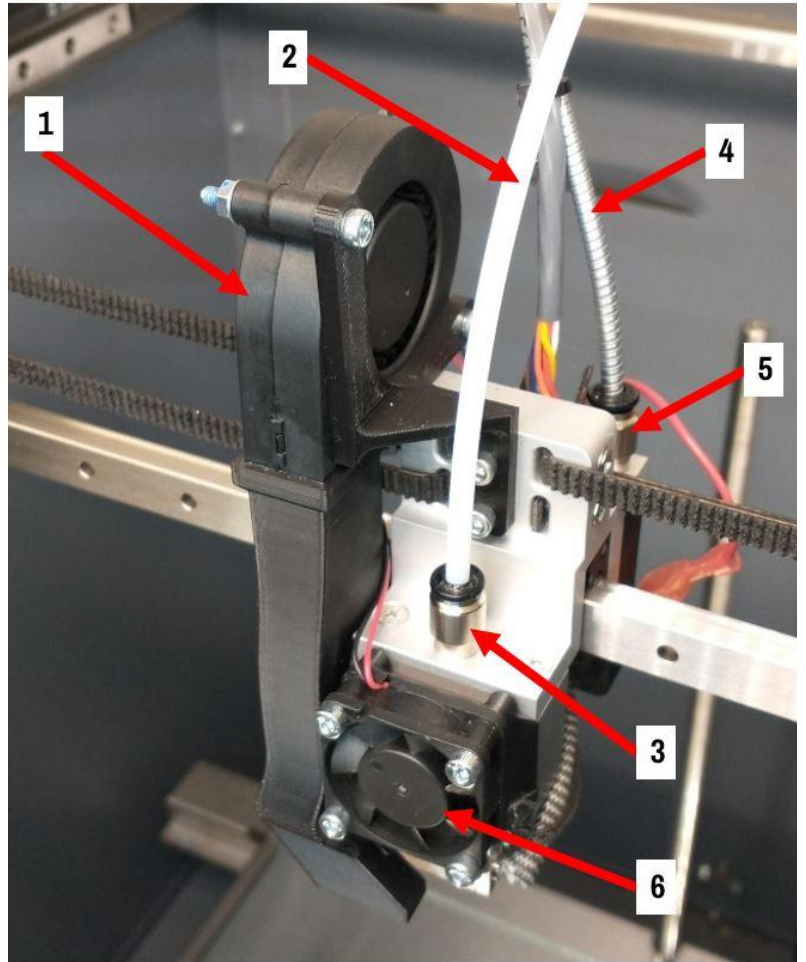


1. Print surface (glass shown)
2. Z axis substrate (bed substrate)
3. Z axis leadscrews (3)
4. Z axis rails (2)
5. Z axis belt

PRINT HEAD ASSEMBLY DETAIL

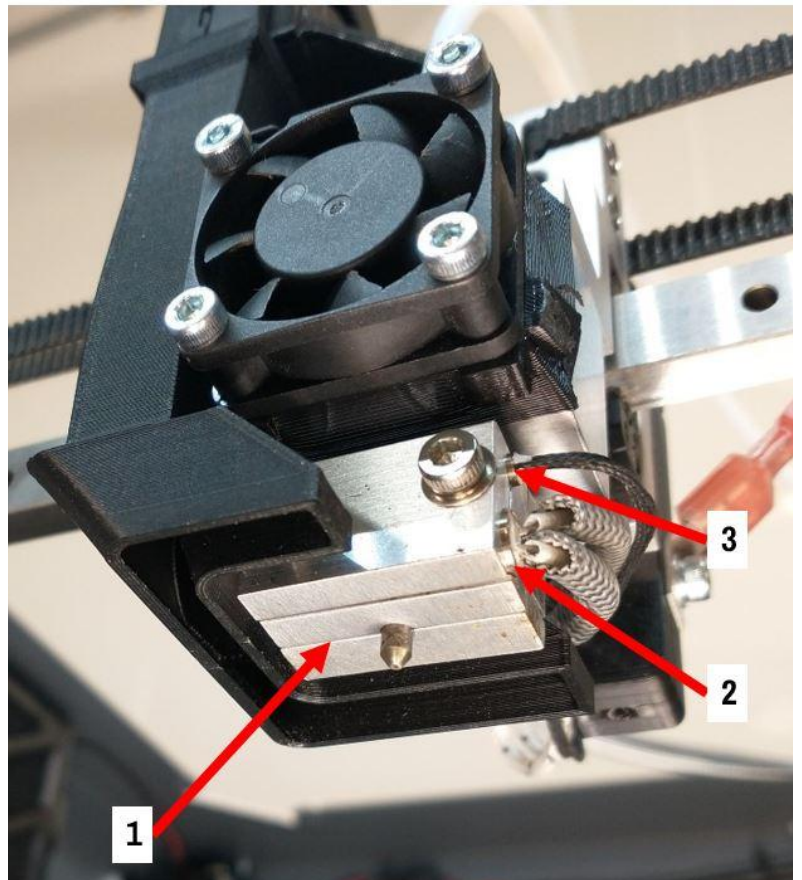
Top View

1. Cooling blower & duct (runs intermittently as needed)
2. Bowden tube
3. Bowden tube PTC fitting
4. Bed probe tube
5. Bed probe tube PTC fitting
6. Print head cold side fan (AKA 30mm fan) (runs constantly when print head >45 C)



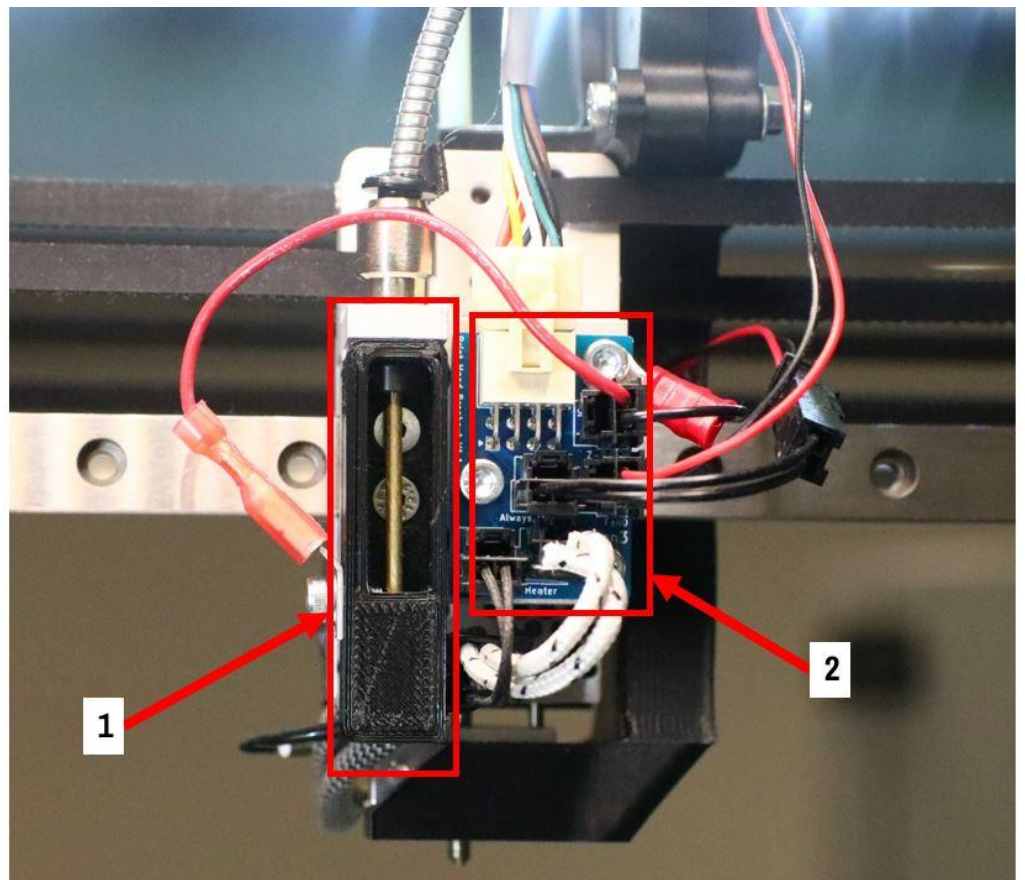
Bottom View

1. Print head hot section (where the filament is melted)
2. Print head heater cartridge
3. Print head temperature sensor



Rear View

1. Bed probe assembly
2. Print head breakout board



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