PWM Case Fan Layout for Air-Cooled CPU & GPU

Design Goals

1. Each case fan can be run at its optimal rpm.
2. Fan cables are not obstructing airflow near critical components
3. Minumum cable distances between fans and headers while maintaining ample slack to avoid strain
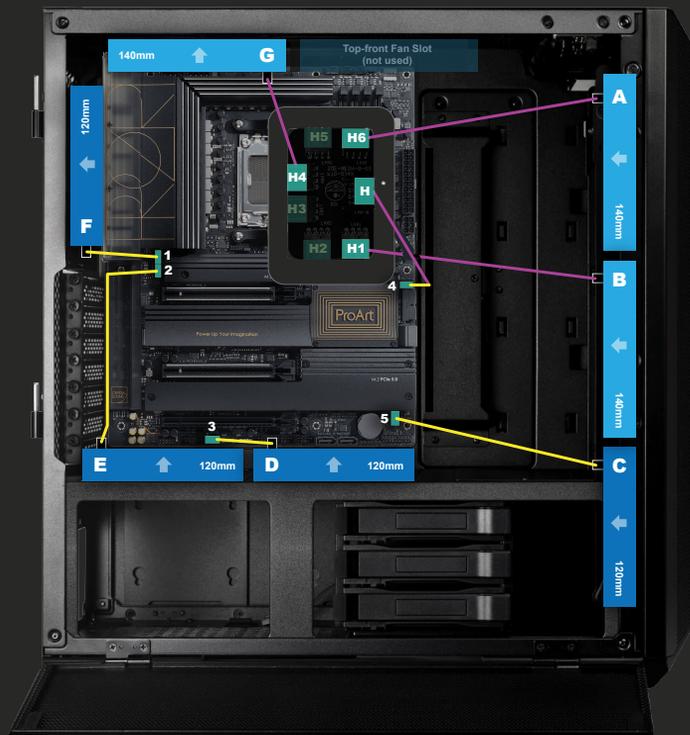
Case: Lian Li LANCOOL ii Mesh Performance C (non-RGB, comes with fan hub preinstalled)
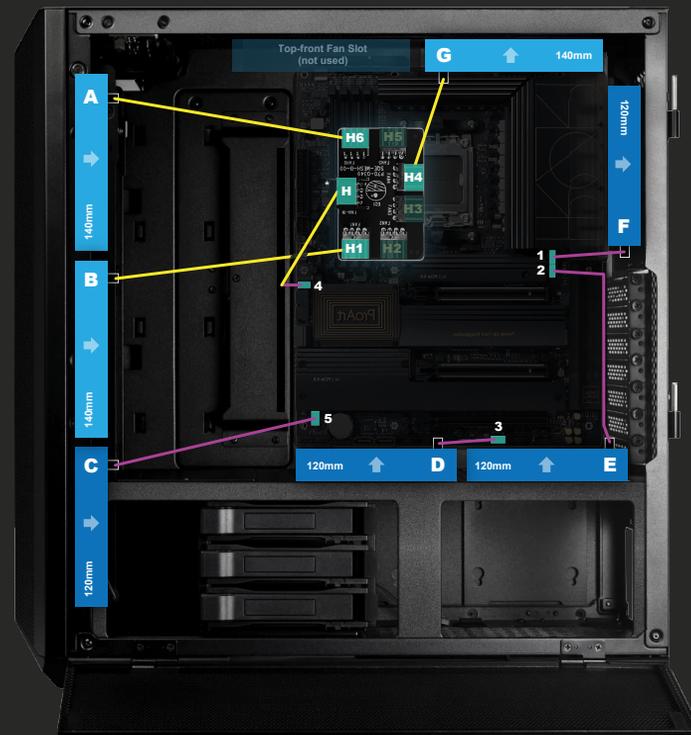**Motherboard:** ASUS ProArt X670-E Creator WiFi
Case Fans: 3x Noctua NF-A14 140mm and 4x Noctua NF-F12 120mm (not using any stock Lian Li fans)
CPU Cooler (not shown): Noctua NH-D15S with additional NF-A12x25

Legend

A Front-top Intake Fan (140mm, to Header **H6**)
B Front-middle Intake Fan (140mm, to Header **H1**)
C Front-bottom Intake Fan (120mm, to Header **5**)
D Bottom-front Intake Fan (120mm, to Header **3**)
E Bottom-rear Intake Fan (120mm, to Header **2**)
F Rear Exhaust Fan (120mm, to Header **1**)
G Top-rear Exhaust Fan (140mm, to Header **H4**)
H Fan Hub (mounted to left side of case, to Header **4**)

1 Case Fan Header **CHA_FAN1** on Motherboard (to Fan **D**)
2 Case Fan Header **CHA_FAN2** on Motherboard (to Fan **F**)
3 Case Fan Header **CHA_FAN3** on Motherboard (to Fan **G**)
4 Case Fan Header **CHA_FAN4** on Motherboard (to Fan Hub **H**)
5 Case Fan Header **CHA_FAN5** on Motherboard (to Fan **C**)

H1 Fan Hub Header **FAN1** (to Fan **B**)
H2 Fan Hub Header FAN2 (not used)
H3 Fan Hub Header FAN3 (not used)
H4 Fan Hub Header **FAN4** (to Fan **E**)
H5 Fan Hub Header FAN5 (not used)
H6 Fan Hub Header **FAN6** (to Fan **A**)

- **140mm** Noctua NF-A14 Case Fan
- **120mm** Noctua NF-F12 Case Fan
- Fan Header
- Orientation of connector attached to fan
- Fan Cable unobstructed from view
- Fan Cable obstructed from view
- ⬆ Direction of Airflow

* Note that fan hub diagram not to scale
Only 140mm on fan hub. All 120mm direct to motherboard

Right Side View (Motherboard Exposed)

Left Side View (Fan Hub Exposed)