

# Protect your 3d printer fans

Protecting your 3D printer fans is increasing the lifespan of your 3D printer!

## Protecting them from what?

- From dust that can:
  - Reduce the performances of the fan
  - Increase fan's coil temperature
  - Generate vibration due to non homogeneous dust repartitions
  - Making your fan noisy
- From screw driver hitting the blades (when we have to tinker something)
- from your fingers or any other object touching the fan's blades

## How to protect them?



- Against dust, use **Dust filters**:
  - [Dust filter for 80mm fans](#)
  - [Dust filters for 120mm fans](#) (type [Noctua NF-S12B redux](#))
  - [Dust filter for 40mm fans](#) (type [Noctua NFA4x10 FLX](#))

### Important points about dust filters:

They will protect your fans from dust but might decrease

maximum airflow by doing so.

So make sure to **never use** dust filters on **Hotends cooling fans** as they always need to keep their maximum airflow.

in this case consider cleaning them often manually.



- Against screw drivers hitting the blades
  - [30mm fan protection grid](#) (ideal for hotends like [E3D V6](#))
  - Previous dust filters that can also act as fan guards.