

## MAINTENANCE OF AIR COMPRESSOR

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**Overview:** This protocol indicates the recommended maintenance of the air pressure line to avoid accumulation of water due to humidity. It is recommended to check for humidity every week.

**Materials:**

Bioprinter, air compressor, tubing, sterile standard 0.2 micron filter with luer-lock connections.

**Protocol:**

1. Drain moisture of the condensation trap of the air compressor by pressing on the valve.
2. Dry tubing by blowing air
3. If the printhead valves are clogged:
  - a. First, disconnect the pressure line at the back of the printer.
  - b. Then connect the pressure line from the compressor to the Printhead that is affected. Note: make sure to use an air filter in the pressure line when fouling this.
  - c. Set the pressure at the air compressor to 200kPa and turn on the printer.
  - d. In the "prepare bioprint" menu, select Turn on PH1 or PH2 to let the air pressure go through the pressure valve in a reversed direction. Turn on and turn off repeatedly (every 5 seconds for one minute). This will take away any debris that has collected at the pressure valve. Repeat a few times if necessary.
4. Place (or replace) the sterile .2 micron filter with a short piece of tube in the back of the printer, and connect the bioprinter and the filter to the pressure line with a longer sized tube.