Fluigent Aria 1: Startup

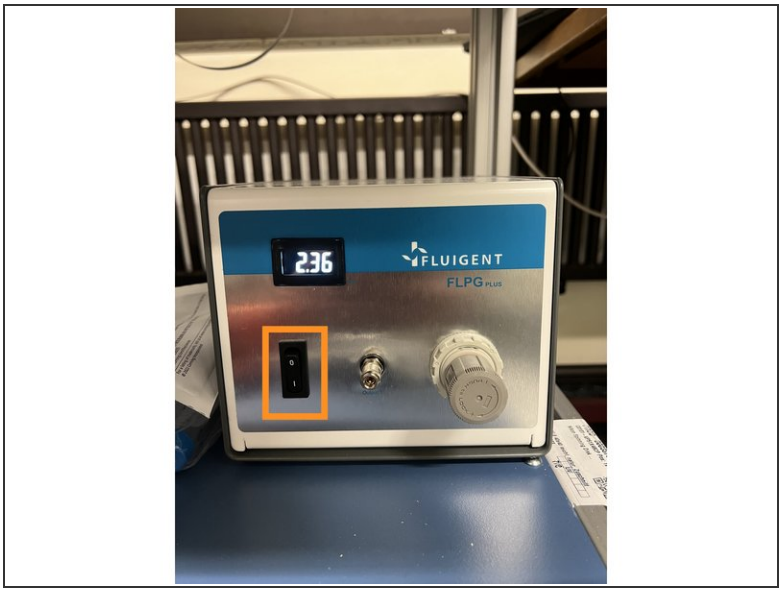
This guide describes how to use the Fluigent Aria Pump

Written By: z mbstaff



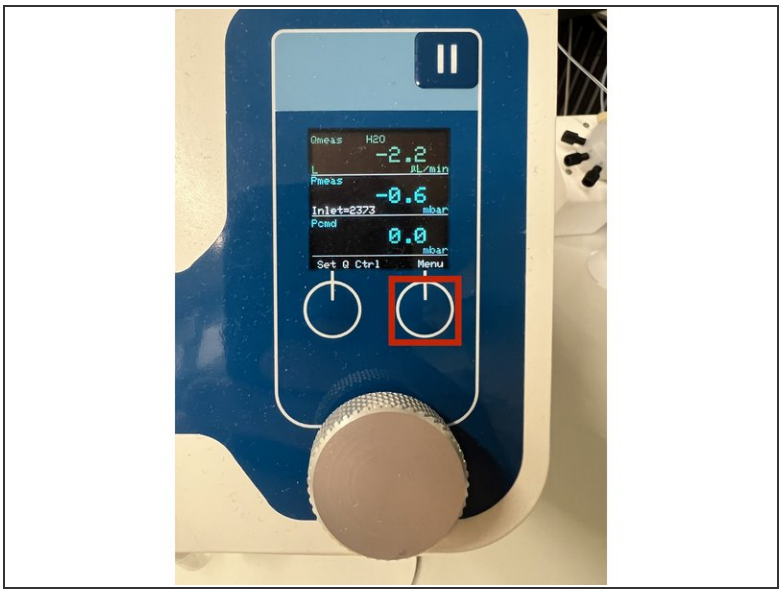
Step 1 — Starting the Aria microfluidics system and the pump

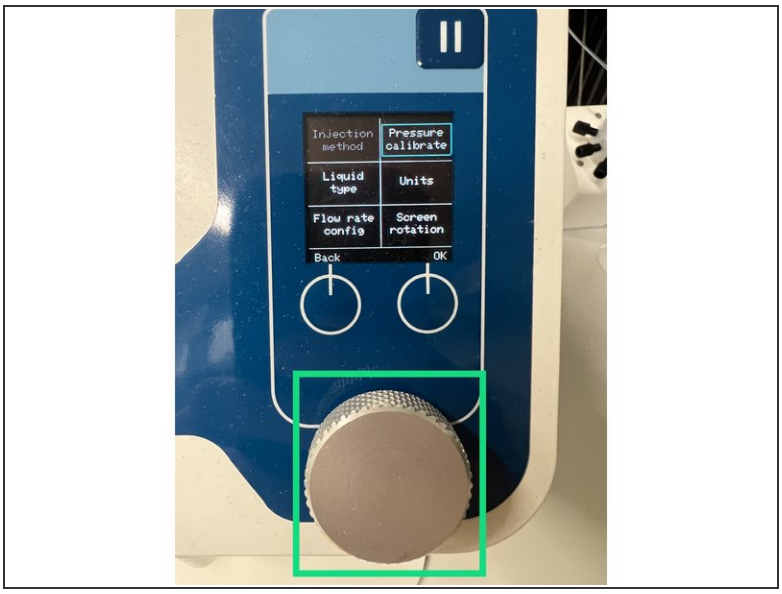




- Plug both the Aria and the pump into a power outlet
- Insert the Aria USB connection into the PC that controls the microscope. If you want to use the Aria without a microscope inset it into the laptop.
- Start the Aria microfluidics system
- Start the pump

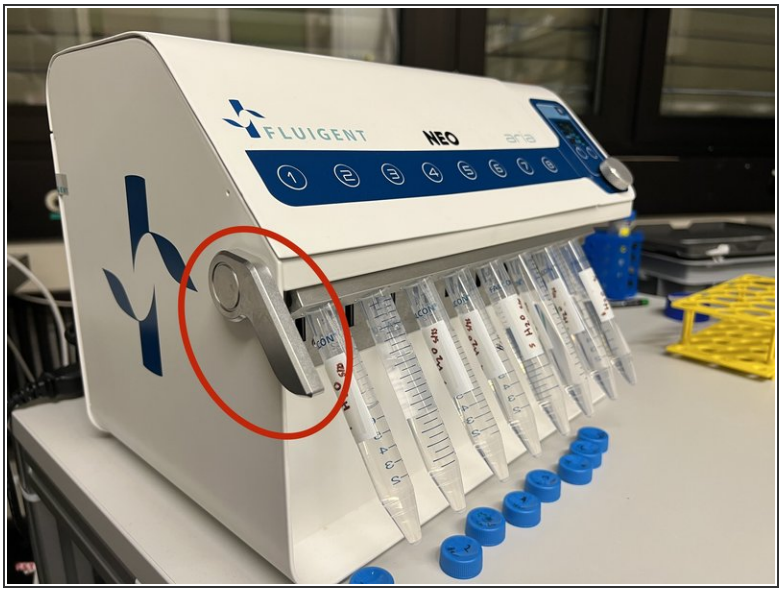
Step 2 — Calibrate the pressure

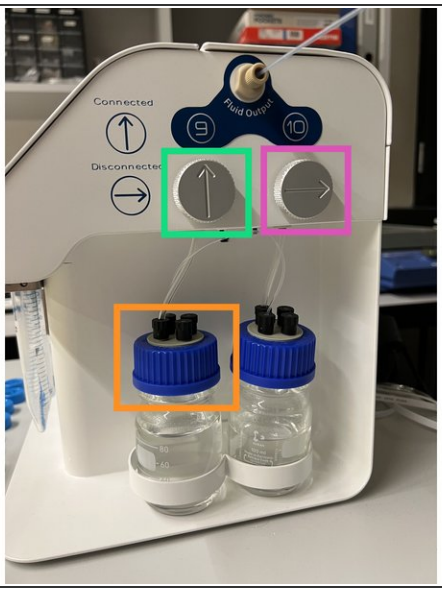




- Select "**Menu**" by pressing the right-hand side button
- Select "**Pressure Calibrate**" by turning and pressing the selection wheel

Step 3 — Change the reservoirs



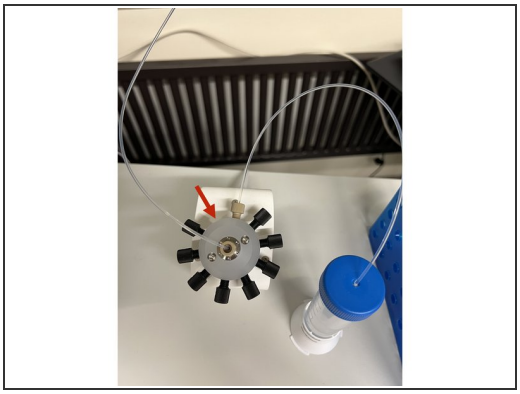
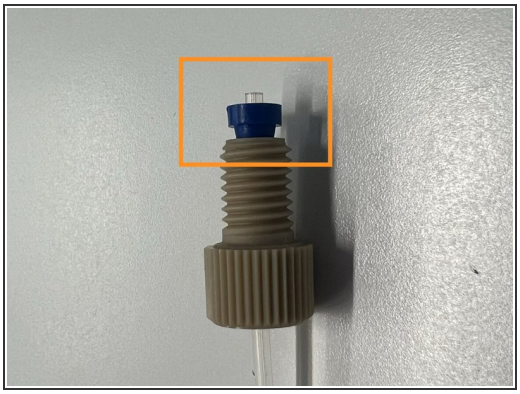
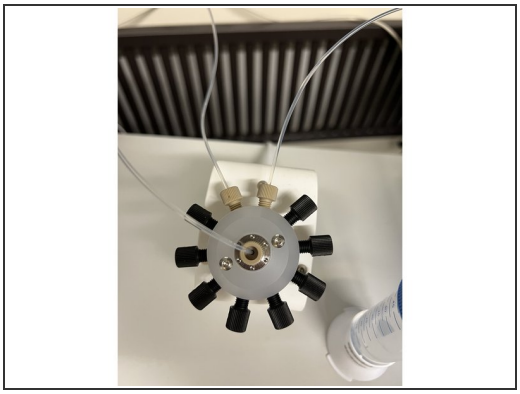


- Pull the lever towards the front, unscrew the water reservoirs, screw your tubes in and push the lever back.

⚠ It is set up only for **Falcon 15mL Tubes (REF 352096)** will fit.

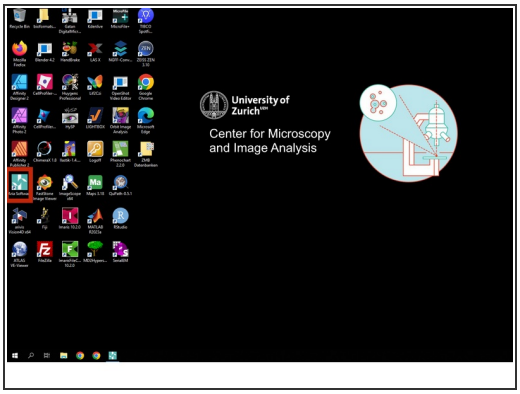
- Turn the arrow into an horizontal-facing direction for the 250mL reservoirs to unscrew.
- Unscrew the 150mL flasks and replace them with yours
- Turn the arrow into an up-facing direction for the 250mL reservoirs that you use.

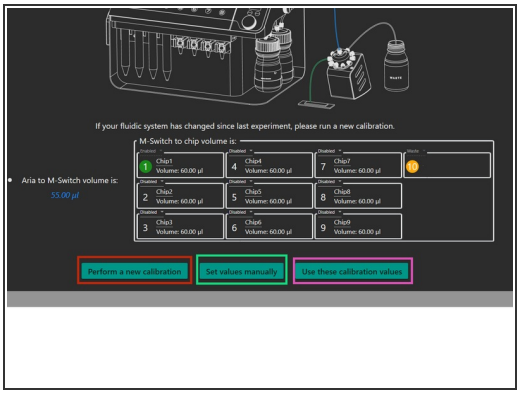
Step 4 — Connect tubings to M-Switch

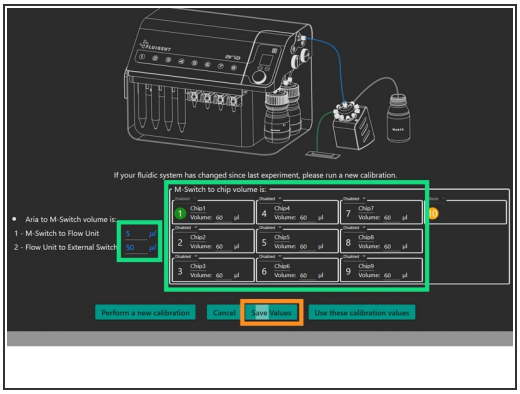




- Detach any tubings or stoppers that are in a outlet you'll need. Make sure that the waste is connected to outlet number 10.
- Make sure that the threaded end of the tubing has about 1mm of tubing coming out.
- Attach any new tubing with the threaded end into the M-switch.

Step 5 — Start the Aria software and calibrate the tubings

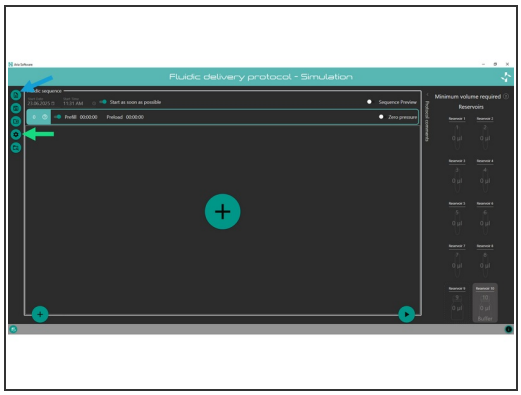


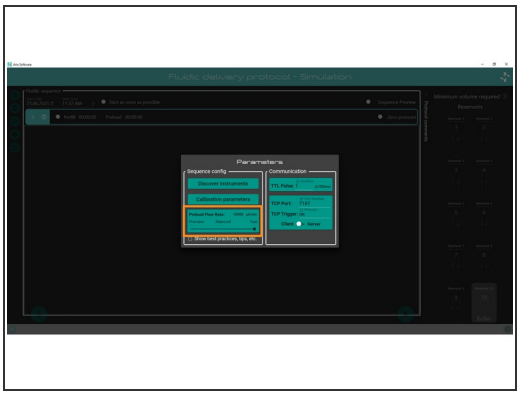


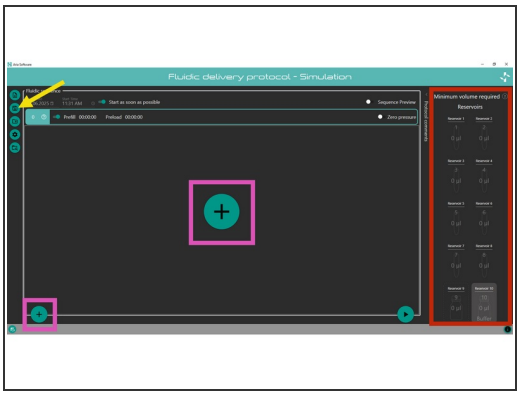


- Start the Aria Software.
- Calibrate the tubing lengths:
  - **IF** your are using tubings of unknown length, press **"Perform a new Calibration"** and follow the steps. After the calibration press **"Use these calibration values"**.
  - **IF** your are using tubings of known length **AND** the values are already set correctly press **"Use these calibration values"**.
  - **IF** you are using tubings of known length **BUT** the values are not set correctly, press **"Set values manually"**. After typing in the values press **"Save Values"**, then press **"Use these calibration values"**.

Step 6 — Load or start writing an Aria Sequence







- **IF** you want to load an Aria Sequence press **"Load Sequence"**.
- **IF** you want to create a new sequence, press **"Parameters"**.
  - Set the "Preload Flow Rate" to **"Fast"**.
- To add elements to the sequence press either of the two **"+"**.
- To save your sequence press **"Save sequence"**.

⚠ Make sure that the reservoirs are filled with the minimally required volume, displayed on the right-hand side of the screen.