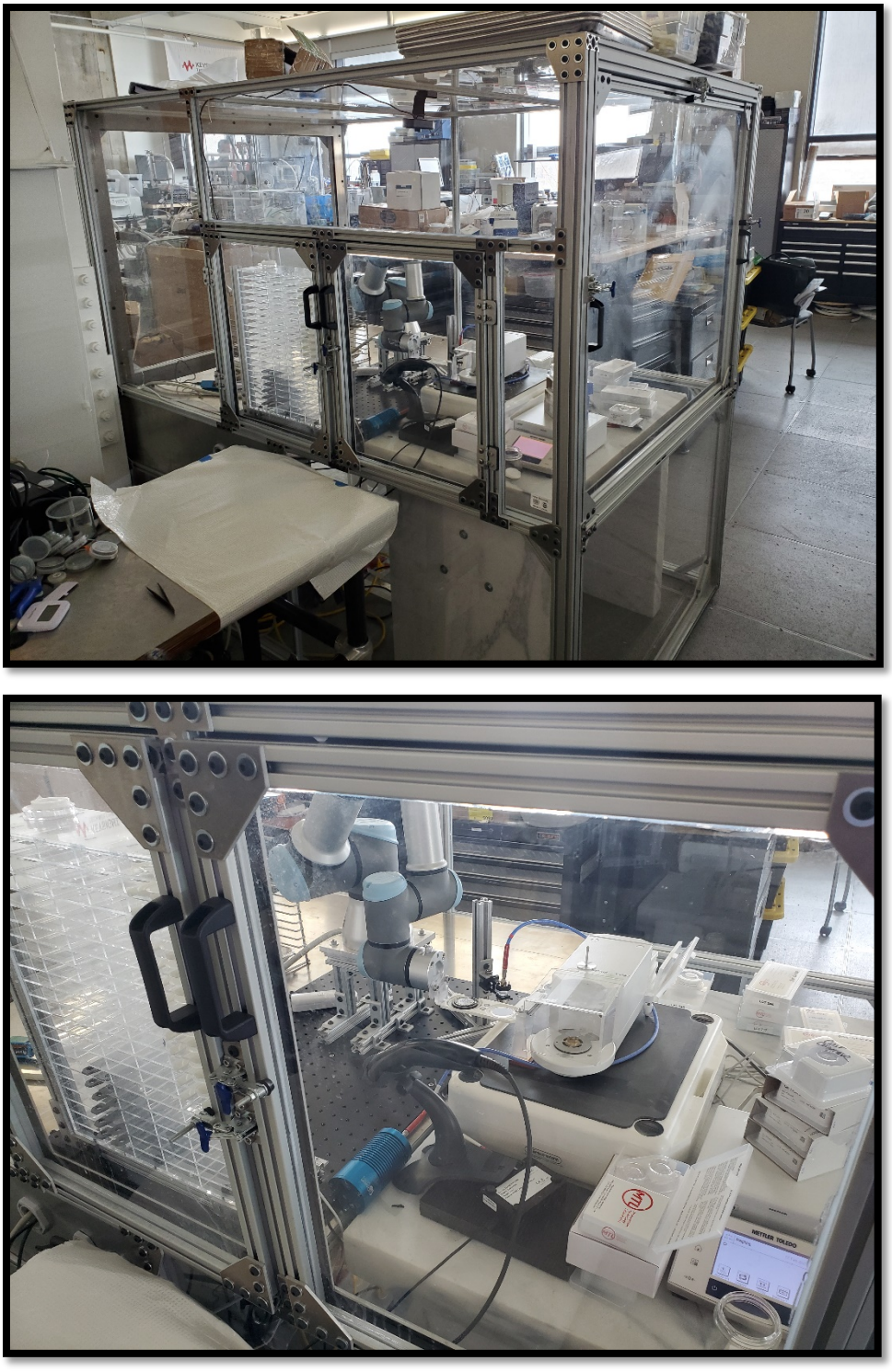

Figure S1: Example photos of the AIRLIFT weighing system. (Top) Image of AIRLIFT system in the Advanced Aerosol Laboratory at Colorado State University. (Bottom) Image showing the robotic arm about to neutralize a filter using the radiation source and then deposit the filter on the microbalance. The filter storage rack can be seen in the left edge of the photo.

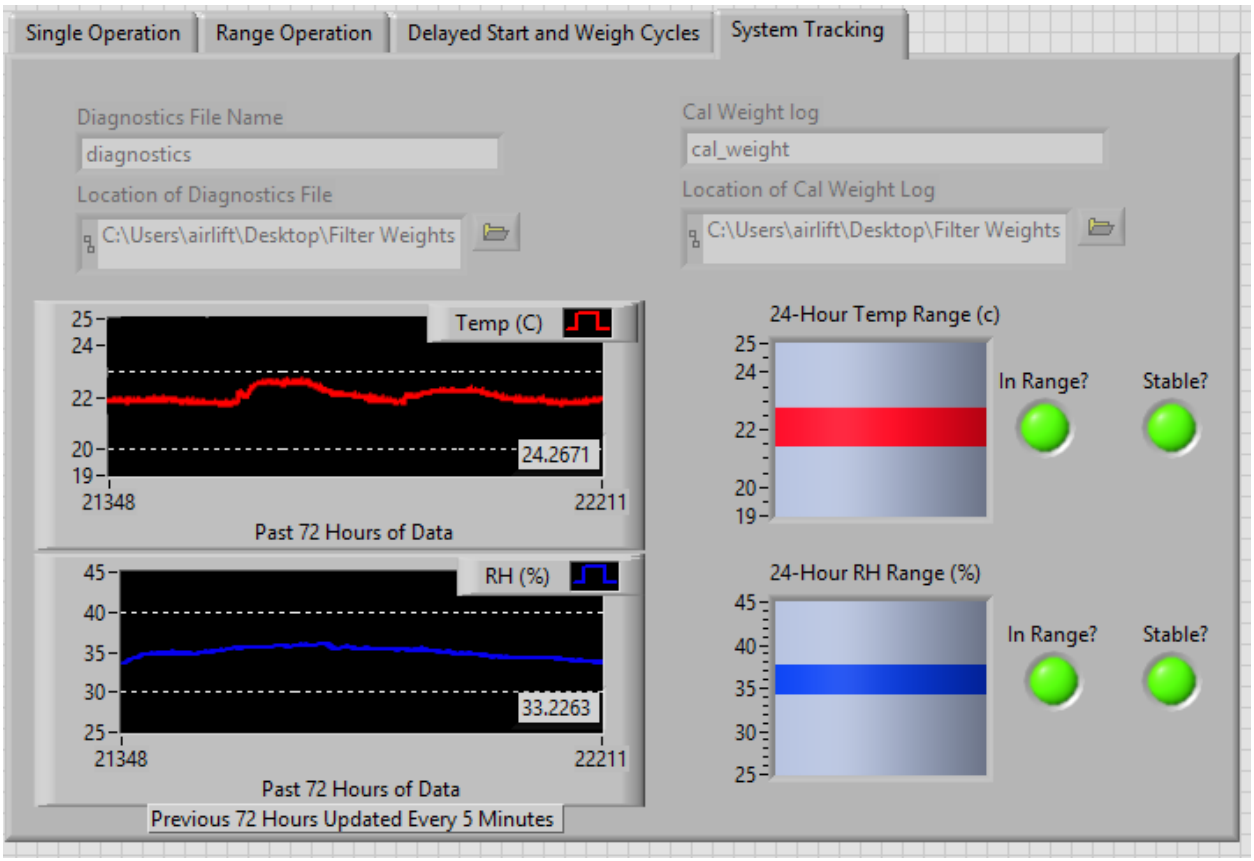

Figure S2: Examples of historical temperature and humidity conditions within the weighing system and examples of some of the quality control information which is presented to AIRLIFT operators.

Table S1: Major AIRLIFT components with brief description and approximate price at the time of purchase.

Component	Model	Description	Approximate Price (USD)
Microbalance	Mettler Toledo XS3DU	• 1 ug precision • 1 ug repeatability • 5.1 g max capacity	$26,000
6-axis Robot	Universal Robots UR3	• 6 degrees of freedom • 0.1 mm repeatability • 3 kg capacity • 500 mm reach	$20,000

Enclosure	Custom	• 4 m^3 volume • Acrylic and extruded aluminum construction • Integrated saturated salt humidity control • 100 filters/batch measurement capacity • >1,000 filter equilibration capacity	$5,000
Neutralizer	Po 210	• Alpha emitter • 13-19 mm distance from filter for optimal neutralizing	$200
Data Acquisition System	National Instrument cRio 9066	• Embedded control with real-time processing capabilities • Equipped with analog and digital inputs/outputs	$6,000