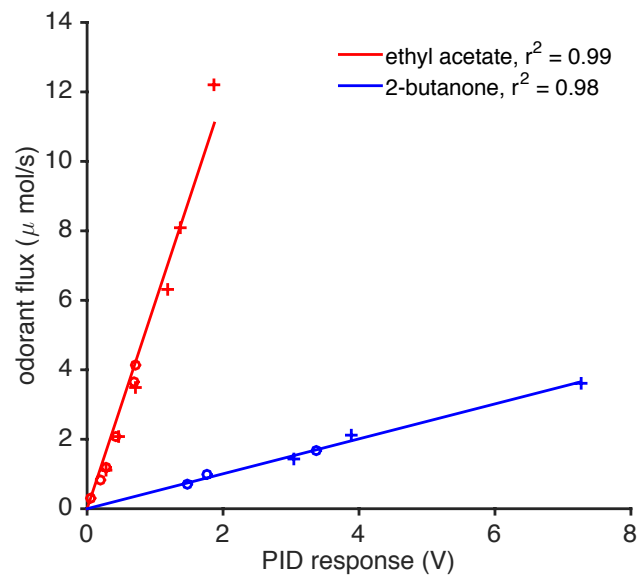
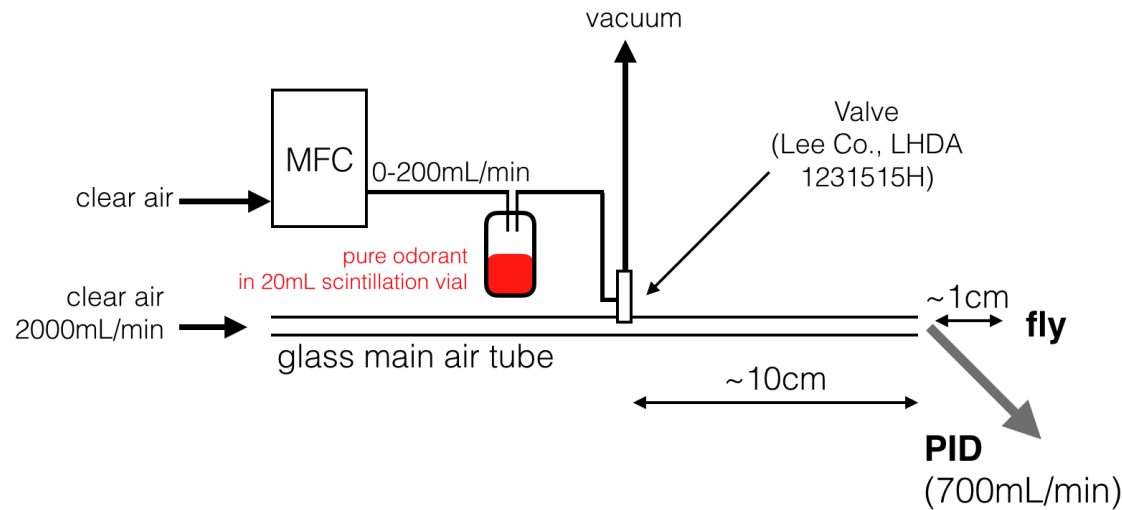


1 **Supplementary Figures**



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5
6 **Figure 1 — figure supplement 1. Diagram of odor delivery device and calibration of Photo-**
7 **Ionization Detector (PID).**

8 1 mL of pure odorant was placed in a 20 mL scintillation vial with a screw top. A computer-
9 controlled Mass Flow Controller (MFC) forced air through this vial, which created an odorized
10 airstream. This airstream was either directed into the main air flow or to waste (vacuum) using a
11 solenoid valve. A PID (inlet needle at the outlet of the main air tube) recorded the gas phase
12 concentration of the odorant stimulus as it was presented to the fly. We calibrated the PID by
13 depleting a fixed, known volume of pure odorant at various flow rates, and integrating the
14 resultant PID signal. Using the known densities and molar masses of these monomolecular
15 odorants, we built maps from PID response in Volts onto the absolute odorant flux. This
16 relationship was found to be linear for the two odorants tested.