A: Pre-mix DNA & Enzymes, then incubate inside SW-FUD Co-Laminar Mixer

1. Add 5 uL DNA, 5 uL enyzme mix in PCR tube & mix
2. Add to one input, tape other closed
3. Add tube, add 10 uL mineral oil
4. Pull at 1 ul / sec, until liquid is viewable
5. Incubate 2 hours
6. Take out tube
7. Pipette out remaining liquid in input chamber
8. Add 10 uL DI H_2O to inlet. Add tube to outlet
9. Pull at least 5 uL, push into PCR tube, heat inactivate

DNA | Enzyme mix | Mineral oil | DNA/Enzyme mixed, unincubated | DNA/Enzyme mixed, incubated

B: Mix and incubate DNA & Enzymes in SW-FUD Co-Laminar Mixer

1. Add 5 uL of each input, then 10 uL of mineral oil
2. Add tube
3. Pull at 1 ul / sec, until liquid is viewable
4. Incubate 2 hours
5. Take out tube
6. Add new tube
7. Pull tube, push all into PCR tube, heat inactivate

DNA | Enzyme mix | Mineral oil | DNA/Enzyme mixed, unincubated | DNA/Enzyme mixed, incubated

Fig. S1 | Visual protocol for running pre-mix and on device mix for the SW-FUD device.