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# Open source and DIY hardware for DNA nanotechnology labs

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## Supplementary information

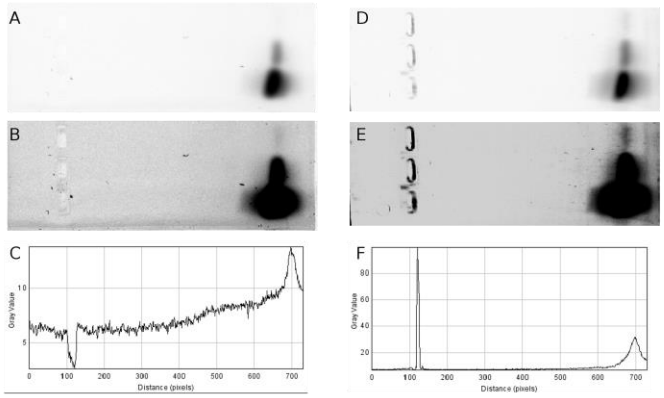


**Figure S1:** Comparison of sensitivity of converted gel scanner with commercial transilluminator. An acrylamide gels gel was scanned with the commercial scanner (A-C) with extended exposure settings. The original image (A), the contrast enhanced image (B) and a line scan through the lowest-intensity band (C) are shown. The same gel was scanned with the converted office scanner (D-F). The gel was loaded with 1000, 100 and 10 pMol each of a single species of fluorescein-modified DNA. The line scans reveal that 10 pMol was successfully detected at a higher SNR by the DIY converted office scanner.

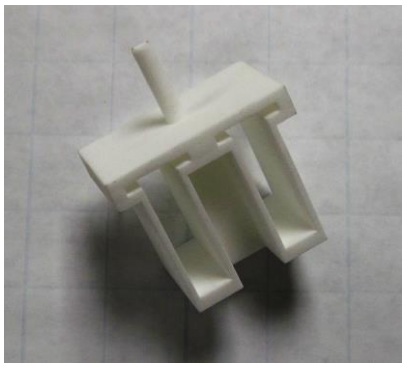

**Figure S2:** A version of the tube holder that can accommodate six tubes is also printable. This homogenizer attachment holds three, 2 ml tubes in each compartment. The 3D printable CAD files are available for download.

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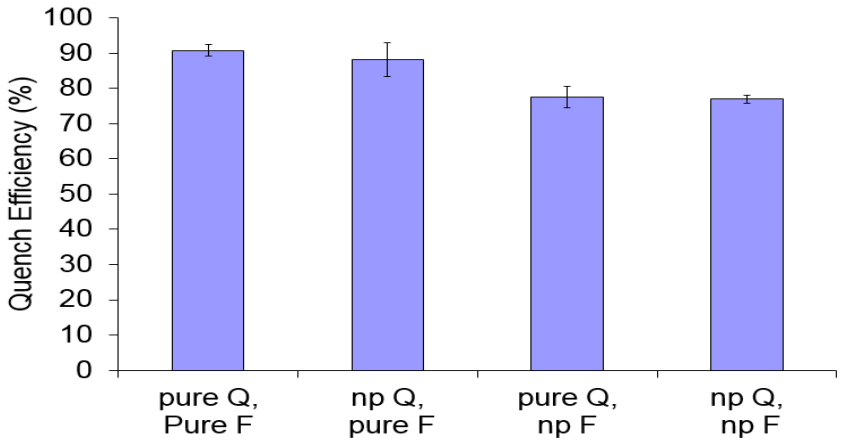


**Figure S3:** A par graph shows a comparison of the quencher efficiency (percentage of fluorescence remaining after adding equimolar quencher DNA). All combinations of purified ('pure') and non-purified ('np,' used as-received) fluorescein-modified DNA (F) and quencher-modified DNA (Q) were tested. Error bars are the standard deviation of triplicate experiments.

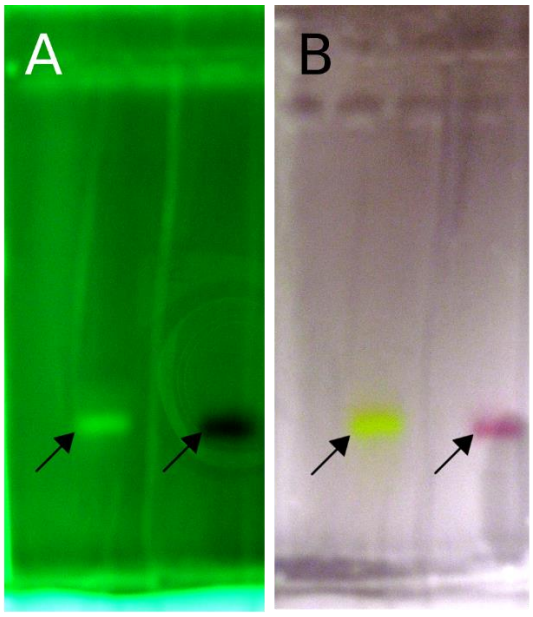


**Figure S4:** Digital photograph of the gel used for PAGE purification. Fluorescein-modified DNA was loaded on the left and quencher was loaded on the right (denoted by arrows). The gel was photographed in front of a phosphorescent TLC plate under (A) UV light for gel shadowing and (B) white light to show the colors of the modified DNA.