

Abstract Submitted
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Building and Testing a Photolithographic System¹ KYEL LAMBERT, M.S. CROSSER, Linfield College — Photolithography is a technique used to deposit metals onto substrates in specific patterns. The process uses light to transfer geometric patterns onto a light sensitive photoresist on the surface of a substrate. We have built a low-cost, maskless photolithographic system assembled from a computer, a consumer projector, and a microscope. The photoresist is spun in a modified food processor and baked on a standard hot plate. Exposing the photoresist only takes a few minutes and allows for multiple runs on the same substrate in a short amount of time. Through multiple exposures, we can make features ranging from approximately $8\ \mu\text{m}$ to $785\ \mu\text{m}$, which is especially useful when making contacts using the large features.

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