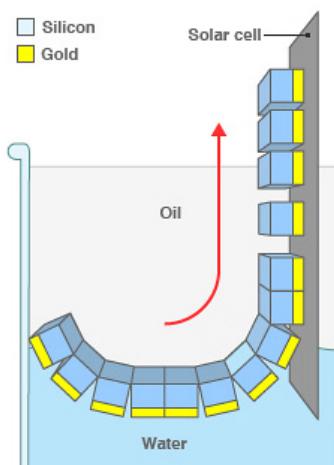


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Self-assembling solar cells built using ancient wisdom, modern technology

By [Vladislav Savov](#) posted Jan 15th 2010 9:14AM

Alright, so [self-assembling electronics](#) are hardly new in and of themselves, and nanoscale tech tends to always come with [bombastic promises](#), but you don't wanna miss how this latest innovation is built. Two professors from the University of Minnesota have successfully demonstrated a self-assembly technique that arranges microscopic electronic elements in their proper order thanks to the absolute enmity that exists between water and oil. By coating elements with a hydrophilic layer on one side and some hydrophobic goo on the other, they've achieved the proper element orientation, and the final step in their work was the insertion of a pre-drilled, pre-soldered sheet, which picks up each element while being slowly drawn out of the liquid non-mixture. The achievement here is in finding the perfect densities of water and oil to make the magic happen, and a working device of 64,000 elements has been shown off -- taking only three minutes to put together. If the method's future proves successful, we'll all be using electronics built on flexible, plastic, metal, or otherwise unconventional substrates sometime soon.

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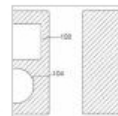
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