



Drug delivery microneedles, 27.9 MB

Research by Peter DeMuth, et al. MIT

Used for delivering vaccine.

Settings: 9.017 x 12inches at 300 dpi

This image appears in Part 1: Using a Flatbed Scanner



**Analytical chemicals,** 217.5 MB

Research by Diagnostics for All DFA

Used for preliminary prototype.

Settings: 2.717 x 2.732 inches at 3200 dpi

This image appears in Part 1: Using a Flatbed Scanner



**E. coli in petri dish,** 370.8 MB

Research by Sangeeta Bhatia, et al. MIT

E. coli growing under four conditions.

Setting: 4.53 x 4.978 inches at 2400 dpi

This image appears in Part 1: Using a Flatbed Scanner Part 3: reflected and transmitted light



Watch gears, 414.3 MB

Settings: 2.405 x 2.613 inches at 4800 dpi





#### Human physiome chip, 80 MB

Research by Linda Griffith et al. MIT

Integrative system for drug discovery and development.

Settings: 3.72 x 5.46 inches at 1200 dpi

*This image appears in Part 1: Using a Flatbed Scanner* 



Mother of pearl, 52 MB

Detail of a necklace from a friend.

Settings: 15 x 13.463 inches at 300 dpi

This image appears in Part 1: using a flatbed scanner



Lung-on-a-chip, 23 MB

Research by Don Ingber Wyss Institute

In vitro approach to drug screening by mimicking the mechanical and biochemical behaviors of a human lung.

Settings: 0.881x0.891 inches at 3200 dpi.

(above is the "inverted" image of the original)

*This image appears in Part 1: using a flatbed scanner* 



Dried flower, 32 MB

Settings: 2.659 x 2.918 inches at 1200 dpi





#### Electronic camera, 43.1 MB

Research by John Rogers et al. U of I at Urbana-Champagne

A hemispherical electronic eye camera based on compressible silicon optoelectronics.

Settings: 7.512x5.567 inches at 600 dpi

This image appears in Part 1: using a flatbed scanner



Microscale solar cell, 72.6 MB Research by John Rogers et al.

U of I at Urbana-Champagne

Array of microscale bars of silicon, interconnected to form a photovoltaic module.

Settings: 1.02x1.81 inches at 4800 dpi

*This image appears in Part 1: using a flatbed scanner* 



### Agate, 216 MB

Settings: 2.613 x 2.821 inches at 3200 dpi

This image appears in Part 1: using a flatbed scanner



#### Microfluidic array, 20 MB

Research by Steve Quake Stanford, *Fluidigm* 

Analytic device with a dense network of channels for regulating solutions on a micro-, nano-, or picoliterscale.

Settings: 10x7.73 inches at 300 dpi











Embargoed until December 15, 2014.

Settings: 10.6657x7.257 inches at 300 dpi

This image appears in Part 1: using a flatbed scanner E-ink detail, 38.2 MB

*E-ink* electronic book page.

Settings: 1.26x1.841 inches at 2400 dpi

This image appears in Part 1: using a flatbed scanner **Pears,** 79.9 MB

Settings: 10.08 x 7.688 inches at 600 dpi

*This image appears in Part 1: using a flatbed scanner* 



Raw egg, 5.33 MB

For a book on the science of cooking.

See PDF, HOW-TO-DO-IT

Settings: 8.06 x 10.28 inches at 150 dpi







Heirloom tomatoes, 88 MB

Settings: 5.889 x 3.623 inches at 1200 dpi

*This image appears in Part 1: using a flatbed scanner*  Music box, 67.6 MB

A gift that plays "Jingle Bells."

Settings: 4.69 x 3.498 inches at 1200 dpi

This image appears in Part 1: using a flatbed scanner Part 2: placing devices on the flatbed scanner



**Euplectella,** 184.8 MB (reduced from original 1G scan)

Research by Joanna Aizenberg Harvard

Skeleton of sea animal whose structure inspires new approaches in engineering.

Settings: 32 x 33.43 inches at 300 dpi

This image appears in Part 2: placing devices on the flatbed scanner



Soft microfluidic sensor, 674.7 MB

Research by John Rogers U of I at Urbana-Champagne

Thin, conformable device technology laminates onto the surface of the skin to enable physiological monitoring in a wireless mode.

Settings: 1.891 x 1.353 inches at 9600 dpi

*This image appears in Part 2: placing devices on the flatbed scanner* 





### Microarrays, 193 MB

Research by David Walt *Illumina* 

Analysis of genetic variation and function.

Settings: 5.954 x 7.895 inches at 1200 dpi

This image appears in Part 3: reflected and transmitted light



Paper-based microfluidics, 96.3 MB

Research by George M. Whitesides Harvard, *Diagnostics for All* 

Patterned paper technology to create diagnostic devices to meet the needs of those living in resource-poor regions.

Settings: 7.515 x 6.996 inches at 800 dpi

This image appears in Part 4: enhancing the scanned image



Diagnostic device, 406.5 MB

Research by David Walt *Quanterix* 

A SONY disk made into microfluidic channels connected to microwell arrays.

Settings: 2.156 x 1.609 inches at 6400 dpi

This image appears in Part 4: enhancing the scanned image



#### Microfluidics, 65.5 MB

Research by Mehmet Toner, et al Harvard-MIT Division of Health Sciences and Technology

Device used to separate various kinds of blood cells.

Settings: 4.238 x 3.751 inches at 1200 dpi

This image appears in Part 4: enhancing the scanned image RES.10-001 Making Science and Engineering Pictures Fall 2014

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