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Brain Engineer [\(Print This\)](#)

04/05/2009

It's the most complex organ in your body. As science reveals more about how the brain works, engineers are devising fixes for when it doesn't.



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Randy Atkins: [Ed Boyden](#), of MIT, calls himself a "neuroengineer." While he studies nerve cells, his focus is broader.

Ed Boyden: I think of the brain as a system that can break in many ways.

Randy Atkins: Causing difficult-to-treat problems like epilepsy, depression, Parkinson's disease.

Ed Boyden: And, like any system that we can think about from an engineering standpoint, we can try to devise strategies for improving its function.

Randy Atkins: Using tools ranging from magnetic stimulation to light waves, Boyden hopes to engineer targeted treatments within active brains...

Ed Boyden: ...that will correct aberrant activity while preserving as much of the normal computations as possible.

Randy Atkins: With the National Academy of Engineering, Randy Atkins, 103 point 5 F-M and WTOP-dot-com.

- Ed Boyden's [site at MIT](#)
- Boyden's blog at [Technology Review](#)
- Multimedia [presentations](#) of Boyden's work
- More about [the brain](#)

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