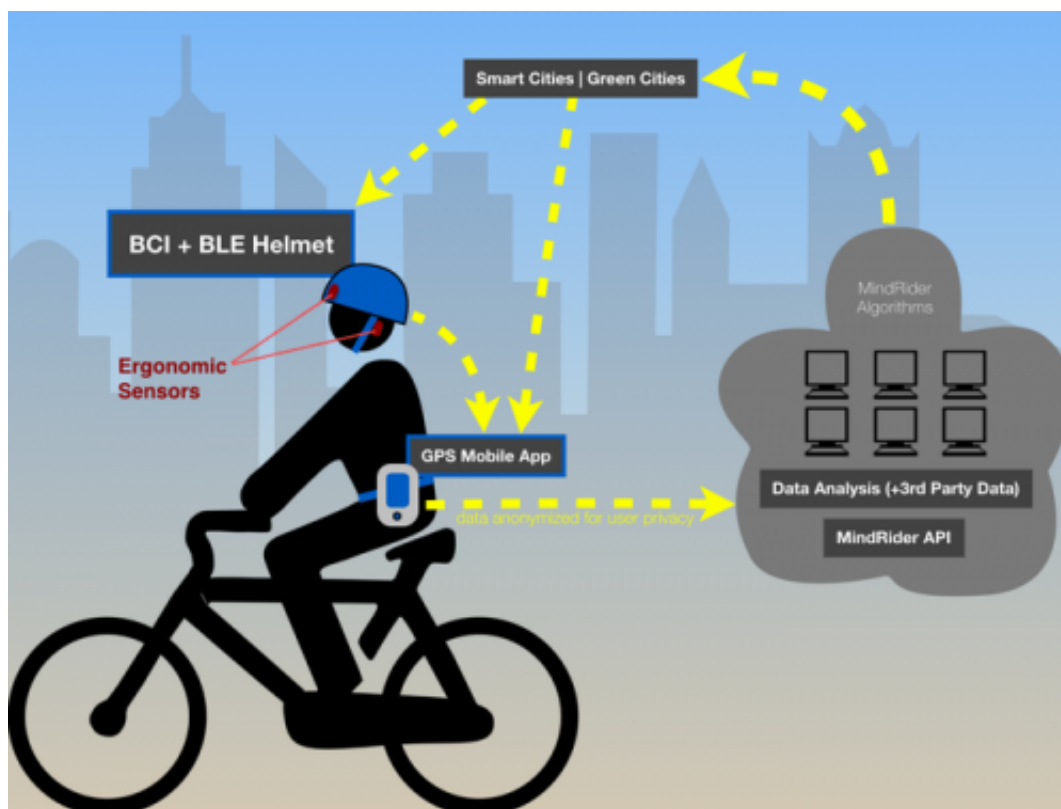


# BMX biker helmet reads your brain waves and plots level of concentration on smartphone

June 12 2014, by Bob Yirka



A Kickstarter project has been posted called "MindRider: A New Mind-Mapping Helmet System"—it's by a team called DuKorp, which has four members, its two founders Arlene Ducao and Ilias Koen and a couple of

workers. What they are selling is the idea of allowing bicyclists (or other helmet wearers) to monitor their level of concentration (or engagement) as they ride. The point of doing so, the team explains, is to help riders visualize stressful routes and then to take action accordingly.

The MindRider is a BMX style [bicycle helmet](#) with an off-the-shelf embedded EEG sensor. The sensor is connected to circuitry that converts degree of concentration into colors on a light: red for high, and green for low. That information is also fed to a smartphone, or tablet computer, which also collects GPS information. Combining the two allows for adding color bubbles (with typed in notes) to street routes, allowing the user to trace where along their route they were forced to concentrate and where they were simply relaxing, presumably enjoying their ride. The idea is to note visually which routes require more engagement, which might be translated to mean which are more stressful. By taking different routes to reach destinations, bikers can figure out which routes are less stressful and can then choose to take the least stressful routes in the future or learn to anticipate stressful parts of their route so that they can take preemptive action to make it less stressful. Ducao came up with the idea while a student at MIT.

The app that comes with the MindRider also allows for sharing maps, bringing up the possibility of a group or organization creating maps that merge data from multiple bikers, highlighting stressful parts of a city or town, for many riders—possibly indicating a need for changes to be made—a helpful tool as more and more metro areas seek to make downtown areas safer for pedestrians and those on bicycles.

The team at DuKorp hope to sell the MindRider to a wider audience as well, suggesting that skateboarders, rollerbladers, para-gliders or even equestrians might benefit from such a device and application. But before they can do that, they need capital to develop their idea further and to

build production facilities. They're looking for \$200,000.



**More information:** Kickstarter: [MindRider: A New Mind-Mapping Helmet System](#)

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