This “smart” traffic light could cut commutes by 60 percent

Kasey Panetta, Associate Editor

Were you aware of the fact that you waste one week per year sitting in traffic?

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That is 7 days, 168 hours, 10,080 minutes, stuck in traffic. Not only is it a huge waste of time, breathing in the exhaust fumes while you sit and mentally-fume can actually be dangerous to your health.

Traffic lights are a big contributor to congestion. Obviously, a necessary part of the transportation process, without lights the roads would be more clogged and infinitely more dangerous. But they could really stand some improvements, at least according to Ozan K. Tonguz, president and CEO of Virtual Traffic Lights,LLC and professor at Carnegie Mellon University.

And so, the Smart Traffic Light was born.

Tonguz, realizing increases in urban populations would only wreak greater havoc on

the commute, saw the system needed a radical reboot. In studying the communities of “social” insects like ants and termites, he found inspiration for ways to fix our own rat race.

The proposed idea would eliminate the traditional infrastructure of a traffic light, moving the signal from the sidewalk to the dashboard. The system utilizes vehicle-to-vehicle communication to maintain order in the intersection by allowing the cars to communicate with each other. Essentially, the system uses short-range technology to assess how many cars are coming from each direction and which direction those cars plan on turning once they reach the intersection. The technology is then able to direct the traffic, allowing the larger groups of cars to travel through first, followed by the next largest group and so on. Instead of the traditional overhead traffic light, the driver will see a green or red indicator on the dashboard.

The team has been developing the system for the past three years and they are reporting a reduced commute time of 40 to 60 percent.

Over the next couple of years, the team has some big issues to address including: how to first implement the lights, how the system will work in real cities on a large scale and how the system will deal with pedestrians and cyclists.

As a bonus, reducing the amount of traffic should have a fairly significant impact on the environmental issues that accompany commutes. As a daily commuter, someone who finds traffic incredibly stressful, and also someone who likes to limit the amount of exhaust I’m breathing, I’m all for this smart technology.

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