

Test-Ride of Green Rider Bikes
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Automobiles are their least efficient and most polluting on short trips, and yet 82% of trips 5 miles or less are done in a car(1). For most, the response to this is fatalism and apathy, and for a growing number it is bicycles. But Green Rider(2) down in Fells Point is offering some options in the middle, and so I went down to give two of them a test ride. They offer several models of electric scooters, and several models of electric-motor-assist bicycles. I got to ride the Motorino XPv (3), a Vespa-style scooter, and the Pedego Compact Commuter 16 (4), a folding electric-assist bicycle.

Motorino XPv

The scooter was a fun ride. I first made what I thought would be a mistake, turning right out of the store and heading toward the water. I groaned when I saw cobblestone streets for several blocks in any legal direction, but to my surprise it actually rode quite comfortably over the rough surface, and even handled the trolley tracks without flinching. The light weight and low center of gravity made the scooter very easy to handle at stop signs, and its handling was quite responsive. I tried a few maneuvers from my motorcycle training course such as dodging a manhole cover at the last second; it performed nicely which gave me the confidence to take it out on some larger roads.

Out on Boston street, where the road speed is around 35 mph, I did resent the MD state law which requires the vehicle to be artificially limited to 30mph. I could tell that the bike had the capacity to go faster, and wished that it did. That said, the cars on the road were surprisingly respectful of my space. The "cagers" respected my lane more riding this than they do when I'm on my motorcycle or bicycle. Not once did anyone tailgate me or pass me too closely. Perhaps because the motor itself could easily go faster, the scooter felt competent at it's top speed. I do wish I'd had sunglasses or goggles to keep the wind out of my eyes. It doesn't stop as quickly as I'd like out of a scooter; it's stopping distance was comparable to that of a car, which is less than you'd expect out of a scooter. That would take some getting used to coming from a motorcycle or bicycle, but it's far from a fatal flaw considering the space that other drivers were giving me.

Satisfied with its full-speed performance, I took it up into some of the hilly neighborhoods north of there. The bike has 3 "gears": a power-saving gear, a standard gear, and a beefy gear for hills. I actually found that the beefy gear wasn't needed for maintaining speed going up the hills; though starting from a stop facing uphill I was glad to have it. The scooter did a pretty good job of popping off the line at a stoplight; I wasn't drag-racing anybody, but it accelerated from a stop at a pace similar to the cars around me.

These scooters are classified such that they can be parked on the sidewalks legally, and they do not require a license, insurance, or tags. At walking pace it was a little touchy, the flip-side of its good acceleration from a stop. Assuming a 170lbs rider and average topography, the range of the scooter is 30 miles. It takes 3-4 hours to charge from empty. While it employs a grease-less ball-bearing system, and therefore requires almost no maintenance, the lead-acid batteries should be replaced every year or two at \$220. The purchase price of the model I rode is \$2195.

All in all I found it to be an easy, cool-looking, comfortable, and enjoyable ride, and I think it could really be a practical transportation option for a lot of urban dwellers such as ourselves. My fiance' even commented on the way home that she would seriously consider buying one in the near future. I was kinda thinking the same thing.

Pedego Compact Commuter 16

I struggle somewhat to properly describe what it was like to ride this electric motor-assisted folding bicycle. By half-way through the test ride, I'd gotten used to it, to understand it, and really started enjoying the ride. But at first I must admit I was perplexed. A lot of that had to do with the unusual geometry of a folding bike. The short range of motion of the pedals, the small wheels, and the low center of gravity all made for a very different feel than the full-size urban-assault style bike I'm used to, before I even engaged the electric motor. The bike has six gears, set up for a range of speeds between a slow walk and a good sprinting run. The motor operates independent of those gears and you can feel the mass of that motor if you start pedaling without it.

Of course that's the point: you don't start pedaling without it. Engaging the motor accelerates from a stop quite effectively, and if you also pedal in 6th gear at the same time, you can go on a green light just as fast or faster than in a car. Now normally on a bike you wouldn't start off from a stop in 6th gear, but with the motor assist it's a breeze. Then once you get up to speed you can throttle down and move along on pedal power. The thing I like least about riding a bike around on city roads is having cars impatiently riding my tail or passing me dangerously when the light turns green. The Pedego completely eliminates this problem.

Even without pedaling at all, this bike moved all 170lbs of me comfortably along Broadway. It boasts a 20-30 mile range, so it could be used just like a scooter for errands if one was so inclined. It, like the scooter, didn't stop as quickly as I would have liked. However, it takes many standard bicycle parts, so beefing up the brakes wouldn't be hard or expensive. The standard set-up just isn't for aggressive riders like me; but it's a folding bike, why would it be?

I took it up the hill towards the Med school and that task did require both me and the motor to get the job done. The truly lazy or infirm might find themselves needing to do that on the sidewalk where the pace is slower than the road.

I want to mention their unusual and excellent approach to folding. On a normal folding bicycle, the seat and handlebars telescope down into the frame, which then folds horizontally somewhere in the middle bringing the two wheels together side-by-side. My gripe with those always is that you still have a bulky and awkward object to deal with, just less so than a regular bike. The Pedego approaches it a different way, pulling up in the middle to bring the wheels together one behind the other. They call it "umbrella" folding, which captures the motion reasonably well. The big advantage is that it creates an object that is significantly better suited to the spaces in an urban home than an unfolded bike. Folded it requires about as much space as a standing child; but unlike a child you can stick it in a broom closet till you feel like going somewhere.

The model I rode costs \$1395 which isn't chump change, but is about what a good quality folding bike will often cost in the end anyway. It runs on a lithium ion battery which charges fully in around 4 hours.

All in all, while I'm not the target market for this particular model, I found it to be a fun ride and think it could be a pragmatic solution for a lot of people. The folding mechanism and the performance from a stop are real highlights of a total package that could make it very enticing to a urban-dwelling person in average to well-below average fitness. It is designed for that range, with aspirations of moving riders up the fitness curve. It's also a real head-turner. In my short ride up and down Broadway two different people called out to ask me about what I was riding. My answer? It's this crazy new thing I'm trying out. So far, I like it.

The folks down at Green Rider, which is located at 714 S. Broadway St, were very friendly

and eager to answer all of my questions. They currently rent out the scooters in addition to selling them, and are planning to rent out the electric-assist bicycles as well. Both of these vehicles could be a useful addition to the urban transportation portfolio here in Baltimore, and in my opinion could be a good fit for the graduate student lifestyle. In a nutshell, I would recommend them to a friend.

1. <http://www.bikeleague.org/resources/why/environment.php>
2. <http://www.greenriderusa.com/>
3. http://www.greenriderusa.com/greenrider_motorino_bikes.php#xpv
4. http://www.greenriderusa.com/greenrider_pedego.php