

## Segway: Next “Best” Thing or Expensive Fad?

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Is your department looking a new technology? They ought to be. We owe it to our communities to evaluate new technology and if it helps us to do a better job, we should, if possible and practical, adopt it. Once uncommon, bike cops and bike medics are everywhere; accepted and vitally useful. Are Segways in your future? Don't make your decision yet; take a look at both their benefits and their limitations.

Depending on your needs, they may or may not be rolling your way.

Before I start quoting facts and spouting my opinions, let me tell you where I'm coming from. I became a bike cop in 1991. I'm PCI #204 and EMSCI #055 and I'm a 51-year-old, 28-year veteran police officer at a major university. We've had Segways in our possession since April of 2006 and I've been assigned to run that program. I maintain a fleet of 22 bikes and 7 Segways. With that said, let's take a look at the advantages and disadvantages of the Segways.

### *Segway Facts*

- Not all Segways are the same; there are different models.
- The “Police” model is the “i2 Police,” here's a web link:  
[www.segway.com/personaltransporter/model\\_i2\\_Police.html](http://www.segway.com/personaltransporter/model_i2_Police.html).
- If you want to get the “off road” version, you'd want the “x2 Police”:  
[www.segway.com/personal-transporter/model\\_x2\\_Police.html](http://www.segway.com/personal-transporter/model_x2_Police.html).
- The i2 goes roughly 24 miles on a charge, depending on load and terrain. They charge from a standard 110 plug using the supplied cord (which is identical to the cord supplied with your computer).
- The x2 model has bigger tires, is heavier, an inch taller, and only gets about 12 miles on a charge.
- The top speed of any Segway is 12 ½ miles per hour, regardless of slope or terrain.
- The tires are tubeless (15 psi).
- Segways can spin in place. When they do, one tire rotates forward, the other backward.
- The newest models have the lean-to-steer feature. The handlebar leans to the side to input steering. The further it leans, the more you turn. If you get one with a fixed-vertical handlebar and a twist-grip for turning, it's an older model.
- Older Segways have three speeds, controlled by which key you use. The new i2 and x2 models only have two speeds, adjusted through the wireless infoKey controller.
- A police Segway runs around \$5,000, depending on how you equip it. I suggest getting bids from several dealers. Here's the link to Segway's accessories:  
[www.segway.com/products/accessories.html](http://www.segway.com/products/accessories.html).
- A Segway is designed so that it's almost entirely intuitive to ride. They come with an instructional video and there is no expectation that you'll have an “instructor” there to teach you to ride.
- There are weight limitations. Less than 100 lbs. isn't heavy enough for the machine to get proper input; more than 260 lbs. overloads the machine's ability to keep you upright.

### *Segway Myths*

- “Segways require special training to operate.” **False**; anyone can operate them with a few instructions.
- “It takes a lot of practice to ride a Segway well.” **False**; but some practice will enable you to ride more smoothly and allow you to adjust to terrain changes more intuitively.

- “*Segways are unsafe; they were recalled.*” **True & False**; Segway did discover a glitch in its software that caused some machines to shut off suddenly and throw their riders. The problem was solved with an upgrade to their software. The fix took less than 10 minutes per machine.
- “*Segways need smooth surfaces to operate.*” **False**; as long as your tires maintain traction, the Segway will operate. If you keep traction in both wheels, they work in snow, gravel, sand, wet grass, etc. Moderation in acceleration and braking are usually all that’s necessary.

We’ve been using our Segways for almost a year. I’ve reached an opinion that they aren’t easily adaptable to day-to-day “enforcement-oriented policing,” but despite that, they’re tremendously useful. They can’t exceed 12 ½ miles per hour, have load limitations, and can’t be ridden up and down stairs (although Tony Hawks could probably prove me wrong on this one). The Segway weighs just over 100 pounds, so it can’t easily be hauled up stairs, over walls or fences, or through mud or thick foliage. It’s great for foot chases as long as your suspect is slow and stays on reasonably level terrain. Your average fleeing felons are faster than you and they’re eventually going to jump over something; a curb, steps, a fence, etc. You don’t really have the mechanical advantage that a bike gives you and the speed of the machine is just too limiting. Of course, if you’re chasing a perp across an airport runway and have unlimited visibility, you’ll be able to keep him in sight and eventually run them into the ground without ever breaking a sweat.

On the other hand, Segways are near ideal for doing what they were designed for: transporting people. We use them for non-enforcement police transportation, increasing mobility, visibility and vision at many of our special events, for use by our tactical medics in non-enforcement situations, and for quick, effortless transportation and shorter response times for our Student Police Aides as they work their security contracts and provide escorts for our community. When you use a Segway, you don’t have to start up your car, burn gas, create pollution, take up space in traffic, or find a place to park. They can go inside buildings and fit just about anywhere. When you’re riding the i2, you’re about 8 inches taller than you are on foot (x2 is 9.5 inches). Visibility is even better than when you are on your bike! You can see over any crowd and over SUV roofs in parking lots. By the same token, you become far more visible to the public. Just as when public safety cycling was “new,” you’ll have to fend off huge numbers of people who walk up and engage you in conversation when they see you on the Segway.

I’ll finish with this statement: They’re absolutely worth the money we spent and they definitely have their niche. They can’t replace our bikes, but they do augment our transportation options. We’re still finding new ways to use them and they are tremendously good at transporting people and equipment anywhere within a reasonable distance. Inside football stadiums and basketball arenas, and at events like fairs, they’re an incredible mobility enhancer and staffing multiplier. They won’t replace bikes for cops or medics, but they sure are useful if you stay within their limitations. You’re probably not going to be patrolling the streets with a Segway, but you’re sure going to find out that they’re useful and the EMS people out there are going to absolutely LOVE them. As long as the medic and their equipment stay within weight limitations, you can pack a lot of equipment and get to your scenes quickly. They aren’t designed to tow a gurney, but I’m betting you’ll be seeing EMS-specific gear for them, pretty soon!

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