

E-Bike

Buying Guide

Why should I consider buying an e-bike?

An e-bike is a fun, practical, and environmentally friendly mode of transportation that helps you do more on your bike. Having a motor makes it easier to ride longer distances, haul cargo (like groceries), transport children, and effortlessly tackle hills. You'll arrive places feeling fresh. Once you have an e-bike, you will likely be motivated to ride more often than you would have on a standard bike.

What types of e-bikes are there and what features do they have?

There are three different classes of e-bikes. An e-bike's class refers to how you, the rider, interact with the electric motor.

Class 1

The motor kicks in only when you pedal. It stops providing assistance when you reach 20 mph. You can adjust how much assistance you receive.

Class 2

Like a Class 1 bike, a Class 2 bike has a motor that works when you pedal. The key difference is that Class 2 bikes also have a throttle you can engage for an additional boost. This comes in handy when starting after being completely stopped or going up hills. Class 2 bikes also have a maximum speed of 20 mph.

Class 3

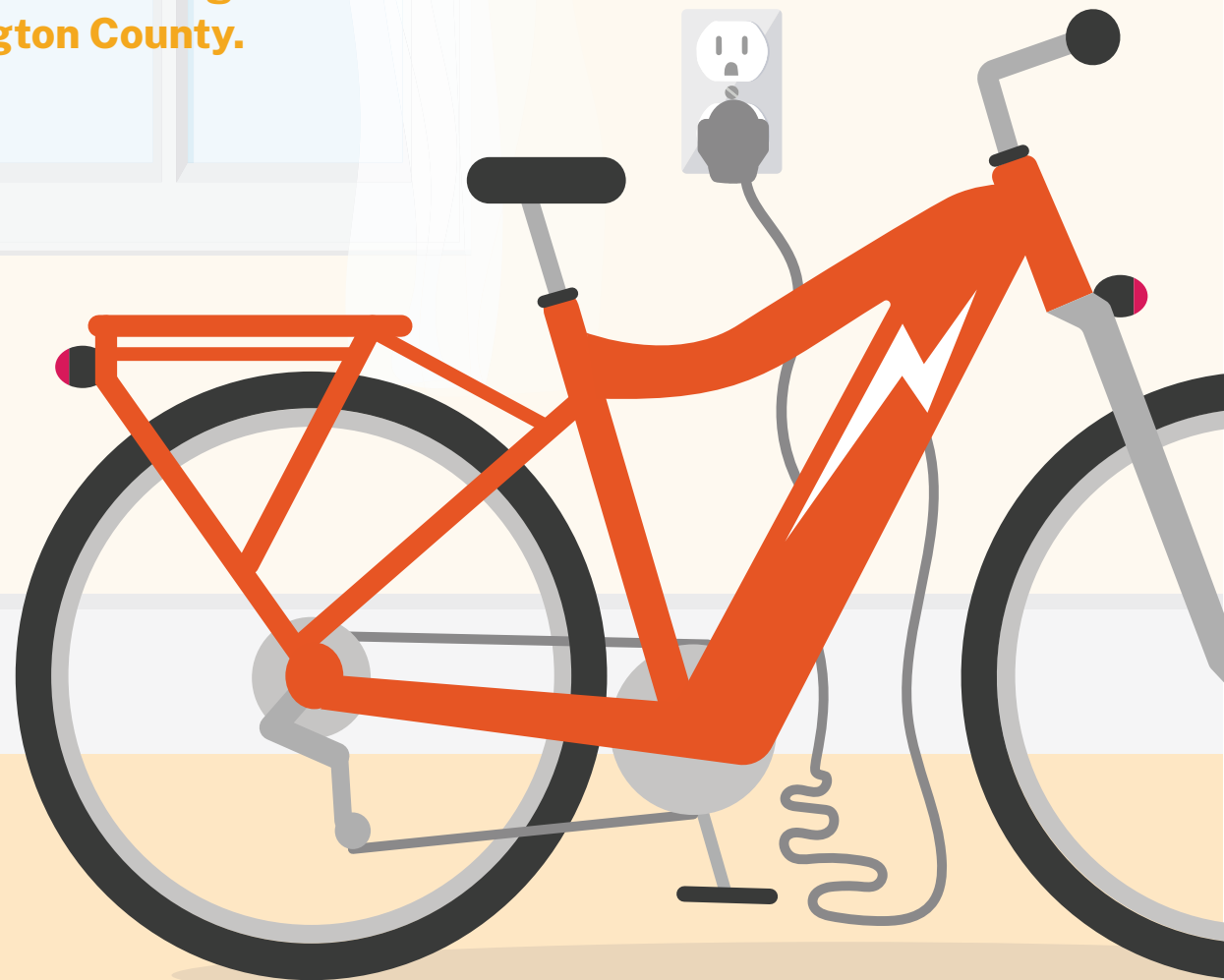
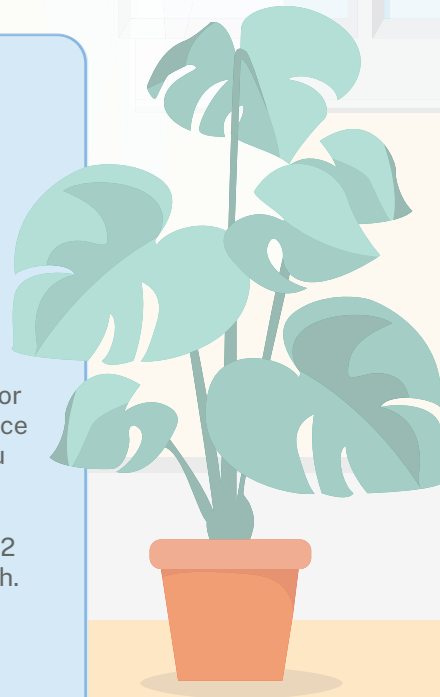
This bike works the same as a Class 1 bike but can go much faster (up to 28 mph). It does not have a throttle. In Virginia, riders of Class 3 e-bikes are required to be 14 years or older.

What are some additional sources of information on e-bikes?

The website [ElectricBikeReview.com](https://www.electricbikereview.com) is a good place to learn about e-bikes, read reviews, and compare different models. It also has a YouTube channel where you can watch thousands of video reviews on a variety of e-bikes.

Finally, e-bike motor manufacturer websites (e.g., Bosch, Shimano, Specialized) are good sources of credible, helpful information on e-bikes.

Visit [BikeArlington.com](https://www.bikearlington.com) for more information about biking in and around Arlington County.



Important factors when e-bike shopping

Does it have rim brakes (calipers or v-brakes) or disc brakes (hydraulic)?

Generally, hydraulic disc brakes offer more braking power and work better for e-bikes since you'll likely be riding faster than you would on a standard bike. So, if an e-bike has hydraulic disc brakes, it's a good sign of a quality bike.

Is the motor in the frame (a mid motor) or in a wheel (a hub motor)?

This feature affects how an e-bike handles, starts, and stops. If you test ride e-bikes and compare the two you can determine if you have a preference for a mid or hub motor. Focus on how it feels for you and if one is more comfortable than the other.

What additional features does the bike have?

If an e-bike already has these features, it will reduce the amount you need to spend on accessories so you may want to make note of them: a rear rack or front rack; front and rear lights; fenders; a kickstand; and a child carrier.

How much can I expect to spend?

While it's possible to get an e-bike for \$500, generally bikes at this price range have lower quality components and we don't recommend them. The average price for a quality e-bike is \$2,000. Here are some estimated price ranges:

Entry Level \$1,500-\$2,500	Mid-Tier \$2,500-\$4,500
High End \$4,500-\$10,000	Accessories additional \$300-\$500



How far can I ride on a single charge?

Every motor offers different levels of assistance that you can select based on your needs. The more assistance you choose, the faster your battery will drain.

Eco Low level of support, maximum efficiency, greatest range	Tour Consistent support for long rides
Sport Powerful support for sporty riding and fast commuting in city traffic	Turbo Maximum power assist

Besides the level of assistance you select, mileage on a single charge is affected by other factors, including weight, tire tread, pressure, wind resistance, and the smoothness of the road surface.

What are the pros and cons of buying online versus buying in a shop?

Online: Prices are generally lower if you buy online. You'll know right away if the bike you want is in stock. You'll have access to more brands and more choices and be able to compare a variety of bike features more easily. However, you'll most likely have to do some assembly yourself and you won't be able to test ride. And if your bike gets damaged in transit, you may not be able to tell right away that something is wrong with it.

If you decide to buy online, we recommend going to the manufacturer's website and seeing who they list as a retailer for their bikes. We do not recommend buying wholesale online.

In a Shop: You'll have a more limited selection of brands and sizes, and it may cost more. However, you'll be able to get advice from staff and test ride the bike to see if it's the right fit. Your bike will be assembled for you and accessories will be added so it'll be safe and ready to ride when you walk out the door. Most shops generally offer one year of free maintenance, so you'll know where to go if you ever have problems or need repairs.

Is there anything else I should keep in mind?

Be sure you have a safe place to park and store your e-bike.

Be sure you are set up to charge it easily. Your charging setup will differ, depending on the bike you buy. If you buy a bike that has an internal battery, you'll need a place to plug in the whole bike to charge. If you get a bike with a detachable battery, you'll only need to plug in the battery.

Also, be sure you have a good sense of how much your e-bike would weigh once you've added all your accessories. If charging your e-bike would require you to carry it up a flight of stairs, for instance, make sure you would be able to do that on a regular basis before buying the bike.

Finally, remember that an e-bike is a more complex machine than a standard bike and will require more care and maintenance. For instance, good e-bikes have hydraulic brakes, which need to be bled at least once a year. Bleeding brakes is messy and takes practice, so most people will need to have this done at a shop.

