

Get a low-cost Electric vehicle and Save Money

You can get free fuel, and also possibly eliminate car insurance, or cut it in half if you have two cars, have lower gas cost, eliminate registration and plate fees, and parking fees. We had 2 cars and canceled insurance on one saving over \$150 a month saved \$30 a month on gasoline. Yearly savings over \$2000. Plus, there is savings on car maintenance.

Most trips daily are only a few miles.

Picture a vehicle that does the above and cost you as little as \$200. And I am talking about a vehicle that has a roof and 4 sides, so you are sheltered from rain, snow and wind, and you don't have to pedal it when you add an electric motor which can get free fuel from solar cells.

Go on YouTube and look at a video on PEBL a small personal car. It is like a golf cart on steroids. But is all enclosed and even has a heater for winter. It is an electric and needs to be charged up. Depending on how many batteries you put in it the range can be 20-100 miles. In most states if you do not exceed 20 MPH you may use bike lanes and sidewalks which are much safer and there is seldom any traffic jam Your small personal E vehicle can go around traffic jams.

The speed of personal vehicles can be 15-40 MPH. Of course, a PEBL or other manufactured personal vehicles are a thousand dollars and up.

But you can get your own personal vehicle for sometimes under \$200. It won't go as fast or be as fancy as a PEBL but you can go, depending on your motor, up to 30 MPH and have a range of a hundred miles.

Most daily trips are to work or restaurants or to local stores. For most people, these trips are just a few miles.

Do it yourself folks can even make an enclosure if from sheets of clear plastic table cloth (Walmart), or plexiglass (from local hardware stores) for a windshield and even a flexible solar panel (Amazon) roof which can be left outside or removed and set in a south facing window to charge the batteries. This can give you free fuel. You could also use an inexpensive charger to charge the batteries on dark days costing just a few cents.

For the absolute lowest cost E vehicle, you can use bicycle parts. Many people already have a bike or Trike (adult size) and it is easy to add an electric motor to it. There are kits available on Amazon for as little as almost

free if you use a used car alternator or DC motor or better a \$60 kit that allows you to make your bike or trike into an E vehicle. Just add batteries (which strap on) and you can do many of those near to home trips without cost.

For absolute lowest cost bikes are sometimes found out on trash days but flag down a trash picker and tell him you want bike parts. He will be happy to get more than scrap cost and you don't have to spend time looking. Local bike shops have used bikes and sometimes trikes.

The most expensive part is the battery. If you choose to use a bike it is better to have lighter weight lithium batteries, but they are expensive. If you choose to have a trike you can easily get much lower cost lead batteries which can set in the rear basket. Shopping around can save you a bundle on batteries. Sometimes you may find discontinued or used batteries at bargain prices. Local hobby shops can put you in touch with hobbyists who may want to get new batteries and would be glad to sell you their older but useable ones.

For a roof one can rig up an umbrella or an umbrella like canopy. Think of children's play tents with the flexible glass rods that support the tent. You can do that if you can fit a plastic tablecloth onto an umbrella canopy. Fiber

glass rods offer great light weight possibilities as they are firmer than Pex but require custom fitting of the material to work. It was quicker for me to just use a Pex pipe frame.

A canopy is not necessary unless you need to go out in rain. Canopies can be cumbersome and take a lot of time to construct. Again the quickest one is just use a medium size umbrella with the end slid down a piece of plastic pipe anchored to the frame behind the seat. There could be a wind danger of going out during high winds. In that case one is safer to skip the umbrella and just wear a raincoat.

An enclosed canopy that goes from head to lower legs can offer protection from rain, snow and wind. I will soon make one fully enclosed including a flexible floor that could allow me to use a small heater to heat the inside. The smallest propane heater I found was little Buddy but it proved too hot and dangerous. I looked at several so-called pocket warmers and found a giant handwarmer that is bigger than the Zippo hand warmer. It does put out some heat safely and can be hung by its bag in front or rear. Two of them may provide warmth for winter use. Being able to go out in cold weather and not be cold

means dressing warmly first of all. The little heaters can add comfort.

Do it yourselfers can make a roof and sides out of clear plastic table cloth, plastic sheeting or even tarp material. Clear Plexiglas does make a better windshield. Those items can be cut to size then fastened onto a pex flexible pipe frame. The roof can be curved in an arc at the top using inexpensive pex pipe or smaller PVC. This can be fastened easily and inexpensively by zip ties. My first effort failed as I had not planned it well. I ended up with a square frame of PVC pipe to which the flexible Pex pipe went down through the hole in a T fitting at each end of the arch. You can drill and put in fancy fittings or just use Duct Tape. Stick on Velcro works but drilling a few holes and using plastic pipe hanging strap material works. But I found that Binder clips do the job without having to drill holes and allow the canopy to easily be removed in nice weather. You can use Velcro for a latch on the door but again we found a binder clip dies the job. Sometimes a binder clip in combination with a zip tie used to position it works even better. If an inexpensive tarp is used at the bottom wrap around lightweight body. it is flexible, so no hinge is needed.

If you want a windshield wiper get a rear car wiper and install it on a bracket just under the plexiglass. Use a used one from a car and secure it to the back of the wiper for a turning knob. Fancy DIYers can even rig up an electric wiping mechanism powered by your battery. But seriously how often would this even be needed. Yes, we save lots of money by using our E vehicle but in really bad weather we of course prefer to use the car.

If one is going to use this vehicle in the winter a tarp floor can be hung on a PVC frame and a personal warmer or very small camping heater used for heat. Many people may not want to go out in the winter because of the cold but if you have a three-or four-wheel personal vehicle it would be useable. Heavy unplowed snow stops almost everybody. You can make these four-wheel drives which can navigate snow better than your car.

I used a drive kit motor on a back wheel and a front hub motor on my front wheel giving me front and rear drive which works better than my car on ice and snow. Your vehicle can be stored inside, and four sides folded flat and the canopy also if you have a slip release on the frame.

You can add a key to the battery circuit for security, and also secure the vehicle using a wire lock. Some folks just take out the battery.

In conclusion Do it Yourselfers can easily modify a bike or trike by adding an inexpensive motor kit and can even add a canopy for rain protection. Some have even made an enclosed vehicle for better rain and wind protection.

On the following pages are a few pictures of EVs (Electric Vehicles) The first one below, my favorite, is the PEBL

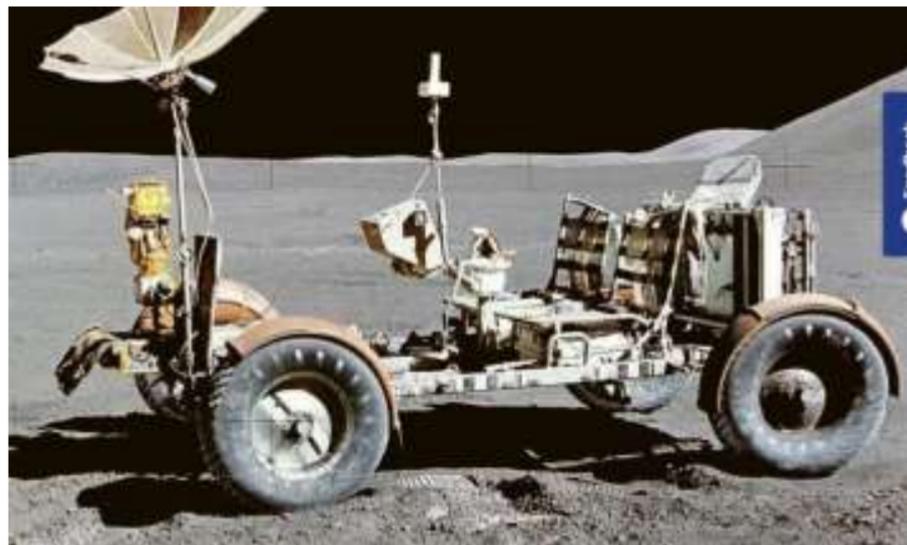


Go on YouTube and look at a video on PEBL (above) a small personal car.



The commercial car manufacturers are obsessed with making excessive profits and have failed to produce a reliable electric vehicle affordable to working people. They have also neglected to use solar panels in the roof which would allow the car to charge wherever it is during daylight hours.

























The standard pedals are below the seat as a standing position gives greatest leg power. Many adults prefer the pedal forward design of the Sun trike below.

Q. CLKX 10 700M



Used bikes can vary in price from \$20 and up. New Bikes are over \$100. New adult trikes can be had for \$200 and up with diligent shopping but often need complete assembly. Read the reviews you will discover that people gave up and took theirs to a bike shop and paid for it to be assembled.

Electrics are several hundred to over a thousand and some several thousand.

Try your local bike shop. I got a great deal from Eastside bike in Center Line. It was cheaper than on Internet and came fully assembled. Don't be fooled some Chinese deals mean you have to assemble everything which in some cases can be a real challenge because often there are no instructions, or they are in Chinese print with no pictures. Assembly can vary from easy to difficult depending on gear systems, brake assemblies and electronics. If you add a motor and it is not specifically for the model of bike you have you may have to fabricate mounting brackets and redo the chain.

Buying local also helps the local merchant and our community.