



The
University
Of
Sheffield.



**Information guide:
eBikes**

Welcome

to the University of Sheffield's eBike guide

Cycling is one of the most used forms of transport amongst staff and students and eBikes in particular are becoming an increasingly popular way to travel.

If you want to discover what an eBike is, how to try one, where to buy one and also learn some security and safety tips then this guide gives you all the information you'll need.

This information covers a portion of what we provide for all cyclists, there's plenty more information at: <https://www.sheffield.ac.uk/cycleforum/index>



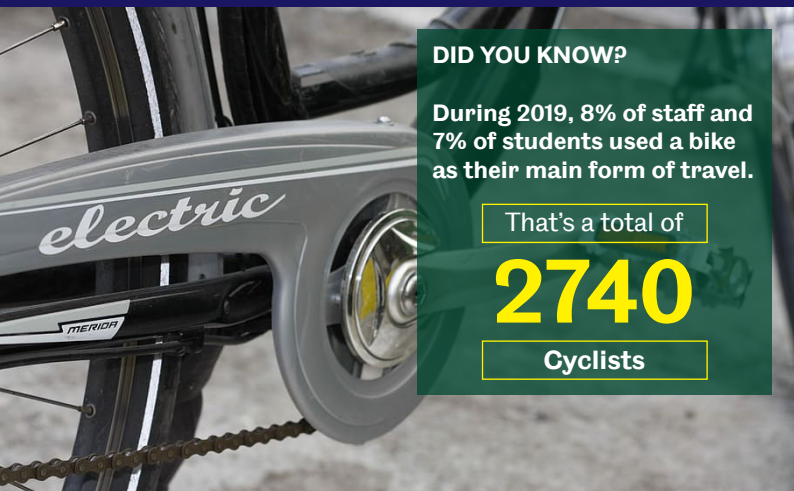
About this guide

This guide is produced by the Parking & Sustainable Travel Team in the Department of Estates and Facilities Management (EFM).

As well as promoting cycling we encourage walking and public transport use as modes to travel between accommodation, campus sites and beyond.

This guide will tell you all you need to know about eBikes from what one is, to different types, how to try one out and then where to buy one.

Links within this document will take you to more detailed information should you need it.



DID YOU KNOW?

During 2019, 8% of staff and 7% of students used a bike as their main form of travel.

That's a total of

2740

Cyclists

What is an eBike?

An eBike is quite simply a standard bike with a battery powered motor which assists the user whilst cycling.

The motor operates when you pedal and you can control the amount of assistance you require as you ride. This is useful when you come to tackle the hills of Sheffield.

The 'feel' of this ride is much the same as a traditional bicycle but with the assistance there when needed.

The best news is you will save time getting to where you need to be and still get your dose of exercise - burning off a similar amount of calories you would if walking.



DID YOU KNOW?

The average one way commuting distance by staff who cycle in Sheffield is 7 miles.

After the tram this is the mode used to travel the furthest distance.

Reasons to try an eBike

There are many reasons to try an eBike, here are a few of our favourites...

- travel from 'A to B' faster
- get fit and stay fit
- tackle those hilly parts of Sheffield with ease
- consider longer journeys you may not otherwise take e.g. commuting
- get outdoors - improve your physical and mental wellbeing
- do your bit for the environment - help reduce congestion and CO2
- there's a eBike for every need, from leisure cycling to deliveries, commuting and tricycles
- they are a good replacement for the car and they can be parked for free
- it can be more effort to cycle in wet conditions with all the extra layers, an ebike can make this easier for all year round cycling



eBike FAQs

Where can I ride an eBike and do I need a licence? You can ride one anywhere a conventional bike can be ridden and you don't need a licence.

Do I have to wear a helmet whilst riding? No, but for your safety it is recommended you do so.

How much time will I save on my trip? Studies show you can complete a journey 15% faster on flat ground and by almost 30% on hillier terrain.

How long does the battery take to charge? A completely flat lithium ion battery will take between 3.5 and 6 hours to charge.

How do I charge an eBike? Most eBikes have a detachable battery. To charge it, simply remove it from the bike, take it into your home or office and plug it into the mains.

How far can I ride with a fully charged battery? The distance a fully charged eBike can go ranges from 25 to 100 miles. This depends on the model of bike and the terrain you are cycling on.

Can I ride my eBike with a flat battery? Yes, this will not damage the bike but it may make your ride more difficult because of the bike's weight. It is best to plan ahead and ensure your battery is adequately charged before setting off.

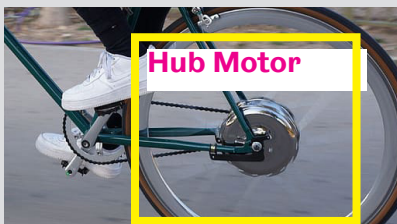
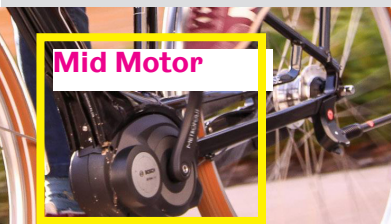
How fast will an eBike go? It's more about the assistance you get on the ride. Most motors stop assisting at 15.5mph due to the law. Prior to reaching this speed you will be electronically assisted with pedalling so, for example hills will be far easier to cycle up.

Can I ride it in the rain? Yes, the bikes 'e' components are contained in watertight housing. They can be washed with soap, warm water and cycle cleaning products such as Muc Off but jet washing is not recommended.

eBike drive systems

With an eBike, there are two main motor systems available - the mid motor and the hub motor. Mid motors are mounted at the crank part of the pedal whereas hub motors are mounted on the wheel hub, at either the front or rear of the bike.

Both have advantages and disadvantages and these are described below. Talk to your local eBike supplier if you require detailed information on differences between drive systems.



Mid Motor

Advantages

- Works well with bike's gears, good for tackling hills
- Lighter and smaller than a hub motor
- Position of motor ensures better balance and makes changing tyres easier
- Better torque resulting in smoother pedal assistance

Disadvantages

- Tends to be the more expensive of the two options

Hub Motor

Advantages

- Limited maintenance required
- Less stress on bike due to less moving parts
- Bike can still be ridden if chain breaks (if motor is mounted on front wheel)
- Cheaper than mid motors

Disadvantages

- Usually heavier than mid motors, adding weight to the bike
- Tyre changes can be fiddly

Types of eBike

Hybrid



All round bike, equally capable on and off road

Good for:
leisure riding, off road cycle paths, commuting, going to meetings, trying an eBike if you are new to them

Cargo



A versatile and popular electric delivery vehicle

Good for:
delivering goods, replacing short car journeys, campus transport, chilled supplies

Trike



Three wheeled eBike variation

Good for:
people with reduced mobility or those new to cycling, transporting light goods, flat ground

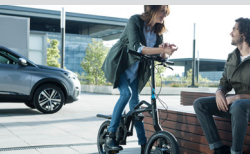
Mountain Bike



The classic mountain bike with something extra

Good for:
commuting, off road cycling, days out in the countryside, tougher environments

Folding



Light weight bikes popular for shorter journeys

Good for:
people with limited storage, carrying in the car or on public transport for onward journeys

Accessible and inclusive eBikes

If you have reduced mobility, recovering from illness, new to cycling and want to get used to a three wheeler first or you need a bike with a decent amount of carry space - a trike is a very good transport option.

A recent Transport for London study found “78% of disabled people are able to cycle” and of these 15% sometimes use a bike as a mode of transport.

Research from the [Wheels for Wellbeing](#) charity showed “The majority of disabled cyclists find cycling easier than walking, with many using their cycle as a mobility aid”.

[Sheffield Cycling 4 U](#) run a **free e-assisted trike loan** scheme. Contact Tom@sheffieldcycling4all.org for more details.

eTrikes can be purchased from a variety of suppliers including those specialising in this type of bike, including [Yorvic Tricycles](#) and [Get Cycling](#)



Electric trikes come in an array of designs from the traditional 3 wheeler to hand driven tandems and laid back (recumbent) versions.

Security: at home and out & about

Securing your eBike at home and when you're out and about is an important consideration. Here are some top tips for protecting your bike:

- Due to the value of eBikes, take security seriously
- The police recommend securing your bike with a D Lock rated with ['Sold Secure Gold'](#)
- If possible, secure both wheels to a purpose built bike rack
- Register your bike frame on [The National Cycle Database](#)
- Use a tracking system like [BikeTrax by PowUnity](#)
- It's highly recommended you insure your eBike, this will cost around £10-£15 per month. Insuring your bike can be done through most household insurance policies or you can choose a specialist insurance company such as [Cycle Guard](#) or [Cycle Plan](#)
- Leave your bike in a well used and well lit area
- Regularly change your parking location, don't leave your bike in the same spot every time you park up
- Further information on cycle security and security services at the University of Sheffield can be found [here](#)



DID YOU KNOW?

Our security staff regularly patrol the campus by bike. It's a quick, efficient and sustainable way of getting around Sheffield city centre.

Tips on cycle safety

Please be aware that it's the law to...

- Have clean, working **lights and reflectors**
- Have **bike lights lit at night** - white at the front, red at the rear

Don't forget to consider this equipment...

- A **cycle helmet** that adheres to current regulations (these are not required by law but are recommended for your safety)
- **Appropriate clothes.** Try not to wear clothes which could obstruct the chain or wheels, or cover your lights
- Light-coloured, reflective or fluorescent **clothing/accessories** (e.g. belt/arm/ankle bands) which help other road users see you
- **Red rear reflector** - your bike **MUST** be fitted with one of these
- **White front reflectors** (and spoke reflectors) will help you to be seen
- **Flashing lights** are permitted. It's recommended that cyclists riding in areas without street lights use a steady front lamp

If you can, park your bike near **good street lighting** and **CCTV**

Lock your bike, even if you are just leaving it for a few minutes

At home, always try to store your bike in the **house** or a **secure shed or garage**

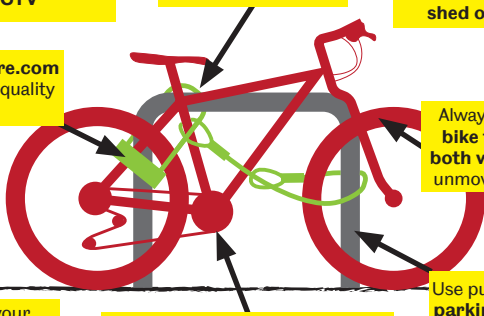
Visit **soldsecure.com** to find a good quality lock

Always lock your **bike frame** and **both wheels** to an unmovable object

Make sure your bike is **insured**

Use a **UV pen** to mark your bike

Use purpose-made **parking stands** to park your bike



TRY B4U BIKE



**Try B4U Bike is free and easy
for University staff**

Scan the QR code to register
An eBike will be allocated to you
Try it **free** for 2 months

If you like it...
You can buy one via **Cycle to Work** scheme



<https://forms.gle/cZuHQw2VuCvo173k7>

Cycle to work scheme

Our Cycle to Work scheme is part of **The Deal**, the staff portal where you can access benefits and discounts.

The Cycle to Work scheme enables users to purchase a bike and equipment over 12 months through salary sacrifice. You can save up to a third on the cost of the bike, up to a maximum value of £2,500.



If you would like to try an eBike before purchasing one, you may be interested in hiring one first through our Try B4U Bike scheme, click [here](#) to register.

The [Cycle to Work](#) Scheme opened on 1st September 2020 and runs until June 2021. The upper limit for bike purchases has recently been increased to £2500.

Different ways to buy an eBike

Like most products, eBike prices vary according to quality and brand and the cost will vary on battery life and range too. A basic hub driven bike can be bought from [Argos](#) for £450. Mid motor bikes are more expensive and new one's start at around £1200. Look out for the sales though as you could grab a bargain!

The Cycle to Work scheme is just one way of purchasing an eBike but there are other methods offered by individual shops. Here, we look at some of the options available:

Halfords offer a [finance option](#) where costs can be spread across a number of months up to a period of 4 years. Depending on the chosen option, interest can be set at 0% APR after an initial payment has been made.

Tredz also offer bikes on finance and they have a handy calculator on their [website](#) where you can input your budget, deposit and monthly period to work out the best payment option for you.

Other independent shops also offer similar payment schemes with 0% APR options available.

DID YOU KNOW?

45% of people who currently cycle said they were interested in trying out an eBike



Step Up Sheffield - BetterPoints

Take the next step to living sustainably

The **BetterPoints** app allows you to record your active journeys to and from the University.

Every time you walk, cycle or use public transport to campus you will earn **BetterPoints** that can be turned into cash to spend on campus, the high street, or donate to local good causes and national charities.

You'll need to sign up to the **BetterPoints** app using your @sheffield.ac.uk email address to join the Step Up Sheffield challenge.

Once you've signed up and start using the app, you'll have the chance to be entered into regular prize draws with lots of great prizes.

Remember, the more sustainable journeys you make by walking, running, cycling and taking public transport, the more chance you have of winning one of these.



<https://stepupsheffield.betterpoints.uk/>

BetterPoints Grand Draw winner Chris with his prize, a Dahon folding bike.



Cycle parking and maintenance

There are over 1,400 cycle parking spaces both on the main campus and at our student residences. We are always looking at new opportunities to improve parking so we can install more stands, lockers and secure stores in Sheffield.

A **map of our cycle parking spaces** can be explored [here](#).

The **Cycle Hut** provides **free bike checks** and at-cost servicing and repairs for staff and students. It is funded through the University Transport Policy with services provided by ReCycle Bikes.

There are also eight cycle repair kits located around campus so you can freely access the tools you need to fix your bike.so



GPS ANTI-THEFT PROTECTION FOR eBIKES

If you decide to buy an eBike, The University of Sheffield recommend protecting it with a GPS tracker.

What is it?

A tracker like **BikeTrax** by **PowUnity** is a component that is fitted to your bike. It's powered from the battery and once in place you can track and record your routes and the bike's movements.

What can it do?

Via a smartphone app you can see whenever your eBike is moving or standing. The GPS is accurate to 5 meters and shows data in real time. Each time the bike is moved you are notified through the app.

How does it work?

BikeTrax is mounted within your eBike and can be fitted very quickly with the right tools. Then, you register via the app (which is free) and connect the bike to the phone. It's simple and secure!

For further information, please visit: <https://powunity.com/en>





Get in touch...

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