

# Using a GPS

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## Pros, Cons & Limitations

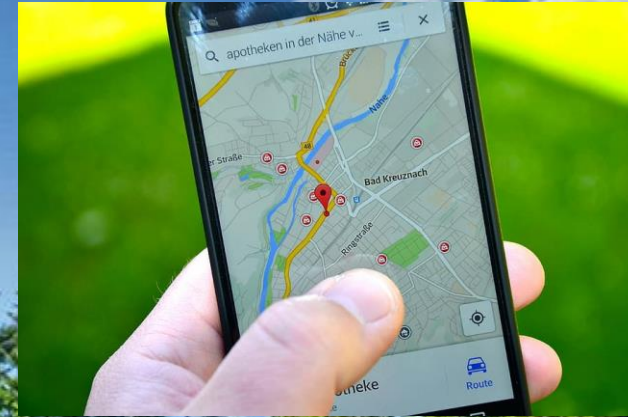
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# What is a GPS Device”?

- Most Mobile Phones (and Tablets) are equipped with a GPS receiving capability
- Google Maps uses this GPS capability to display the familiar “Blue Ball” which locates your current position on the map, whether you are online or offline.
- Many Smart Watches have GPS capability
- Handheld GPS units are also available - very useful for all types of hiking with topographical maps pre-loaded.
- Having a GPS in your pocket or on your wrist is a great advantage for navigation .... but also comes with some risks that you need to manage.

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# GPS Devices-The Pros

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- Accurately & quickly self locate
- Provide coordinates
- Provide detailed maps with a “you are here marker”
- Can track & record routes, distances & heights that can be stored, reused & shared





# GPS Devices-The Cons

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- GPS uses up batteries fast, especially in cold temperatures
- Damaged, dropped or soaked GPS can leave you very exposed
- Detailed online maps need to be purchased / downloaded
- GPS doesn't give "big picture" context
- Can be complex to setup and use





# GPS-The limitations

- Does not make safe route choices for you
- Can create a false sense of security
- A downloaded route may not be doable in all conditions, seasons or by all abilities
- A GPS shows a route but doesn't assess risk for the unprepared, unskilled or unaware participant
- Participants can put themselves into situations beyond their capabilities, which has led to an increase in preventable call outs to Mountain Rescue services.
- If a GPS fails, we still rely on map & compass skills to navigate. The GPS is a tool and should not be relied on as the only means to navigate.





# Use GPS wisely

## A few tips for GPS in the hills

- **A**LWAYS bring A MAP & COMPASS and know how to use them
- **B**ACKUP, spare map/compass, second device, batteries or old phone, a plan B
- **C**HARGE, start at 100% charge & protect in a waterproof case
- **D**OWNLOAD maps to the phone at home in data coverage
- **E**XTEND battery life–use low power mode, charged powerbank



# Phone Based Apps

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## Advantages

- Accessible- almost everyone has a smartphone
- Many maps and routes downloadable for free
- A variety of apps- Outdoors Active, Hiker, AllTrails
- Can buy maps incrementally for new areas
- Not carrying extra devices, have phone anyway
- Can zoom in on a route on large screen
- Can record and upload tracks
- Can offer a beacon feature so others can track location

## Disadvantage

- Battery drains quickly when used for tracking, compromising your ability to call for help in an emergency
- The waterproof case can make it awkward to use in poor conditions.
- Many app maps are not pre-downloaded so can not be accessed when out of coverage
- Rely on charge, coverage, signal which is often risky



# GPS Handheld Device

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## Advantages

- Rugged. Usually waterproof & toughened to take a fall
- Maps are stored on the device.
- Can buy maps incrementally for new areas
- Separate device so phone can be backup and still used for communication if GPS lost/failed.
- Big buttons for ease of use with gloves
- Can follow a route on high quality large screen
- Can record and upload tracks

## Disadvantage

- Expensive additional equipment
- Maps usually need to be purchased
- Does not have own connection to internet. Maps / routes need to be downloaded
- Fewer sources of maps / routes than phones
- Can be expensive to get comparable screen size & definition to the phone.



# So Should I Discard My Map And Compass; No!

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- Carrying a map & compass and having the skills to use them are the foundations of safe navigation in the outdoors.
- It is important to have map & compass skills in order to make best use GPS of based systems.
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- Proper use of a GPS system requires fundamental navigation skills.
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- A GPS is a navigation tool that can aid navigation and add to the enjoyment of outdoor activities.



# Training Resources

Stay Safe on Hills find out more:

- **For members new to the hills**– check out our happy hiking information and programmes which provides useful advice on staying safe on the hills such as planning your walk, what to bring with you, getting a weather forecast and who to call in an emergency.: <https://www.mountaineering.ie/content/HowToStart/139>
- **Find out more on navigation skills and GPS devices:** <https://www.mountaineering.ie/content/NavigationSkills/141>
- **Those with some experience** - A Mountain Skills course is an ideal choice for people interested in exploring mountainous terrain and want to develop their confidence in the mountains. <https://www.mountaineering.ie/content/MountainSkills/122>
- **The AdventureSmart campaign** - Ask yourself 3 questions before you set off. Go to [www.adventuresmart.ie](http://www.adventuresmart.ie) for more information.



# THANK YOU!

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