

# How does pet trackers work?

Before we get into available tracking technologies, let's first discuss the myth on Microchip GPS implants that don't exist in real life. There is no such thing as a real time tracking GPS implant and there won't be for a very long time. The components required to make a real time GPS Tracker cannot be designed and turned into a tiny rice sized implant, if we could we would have by now! Below we explain why.

**There are 4 types of technologies currently commonly used on finding or identifying pets.**

- **Microchip implants (RFID Chips) – NO GPS CAPABILITIES**
- **Global Positioning System (GPS) & GSM Collars**
- **Bluetooth Short distance Radio Frequency transmitters – Collars**
- **Low Power Radio frequency tracking sensors – Lora / Sigfox**

**Microchip implants** – This is the most common method of pet repatriation in the market today. Why? Simple, if your pet goes missing and ends up at a vet clinic, animal shelter or SPCA, they will simply scan to see if the pet has a microchip. If your pet has been chipped and registered they will look it up obtain your contact details, and be able to contact you with the good news of your pet is found.

HOWEVER, Vets around the country receive calls all the times from pet owners on tracking down their lost pets when they do go missing. Unfortunately RFID does not transmit any type of GPS data, it is simply a hidden digital address label.

So why have a Microchip implanted? Because it is almost irremovable and will help locate your lost pet back to you should it be found by the SPCA or your local vet. But question is, what if your pet goes missing and is never found? What if you could find your pet before it's too late? This is where other types of tracking technology come into play.

**Global Positioning System (GPS) & GSM** – Just like a Smartphone, a GPS tracker requires GPS and GSM (Cellphone coverage) signals to work. So think of a GPS tracker like a Smartphone for your pet, where if a Smartphone works, so will the tracker. This also means each tracker requires it's own SIM card like a phone.

Real time GPS Trackers also require 5 major components and parts to work. ***Which is why a GPS tracking implant does not exist, unless you want a rather large item implanted in your pet.***

- GPS Antenna - For getting coordinates from the satellite
- GSM Antenna - For connecting with the local telecommunication towers
- GSM Sim card - For sending the location data via the telecommunication towers
- Processing board - For processing and managing the data
- Battery - To power up the above components

**As you can probably tell by now, a GPS tracker is like your Smartphone, without a screen and other features. While just like a Smartphone, you cannot get an update if there is no cellphone coverage or GPS signal when indoors or undercover.**

**Low power low frequency Sensor trackers Lora / Sigfox** – This is the latest technology available and also commonly known as the IOT (Internet of things). These products offer a long lasting battery life which is a definite plus, and can in some instances last for up to 3 months (depending on customer usage and many other factors). Due to the low radio frequency offered by the operators, it enhances battery life however, not fully rolled out in most areas or countries much more research needs to be done for the product offering to work as advertised. Very misleading as well as expensive and after extensive testing by ourselves in-accurate locations was experienced which is common with these kinds of products.

These devices do offer some peace of mind to the pet owner, we however found many errors which accompanies these products. These products have an automatically set update interval of 10 minutes and as we know a pet can wander very far in a 10 minute interval. Also offering real-time GPS tracking which consumes a lot of battery power we found the product advertising to not be true and correct and can be very misleading.

Information of your pet's location is updated to a Clout Platform and then transmitted back to your Smartphone via. an App. With millions of users making use of such technologies in various sectors, the download intervals at stages took up to 2 to 4 hours before you could see your pet's whereabouts, which is not acceptable. Although we do like the idea, much more needs to be done to improve the performance of such products and we can simply NOT approve of such products been added to our current range of products.

It also has a annual subscription fee payable to make use of the network offering.

**Bluetooth Tags** – Although ideal for pets who do not wander off far away from home, this product communicates with your Smartphone via. Bluetooth and has a range of approximately 122 meters.

As we know, most pets roam around further away than 122 meters, which means you will not be able to find your pet if it leaves this boundary. Commonly advertised as a GPS device, it has absolutely nothing in common with an actual GPS tracker and cannot be compared with a GPS real-time tracker. Usually these tags are very cheap and are very misleading to people who are not familiar with the GPS industry offerings.

**In short** - In 2015 we designed the Alleycat GPS device and we successfully launched our first GPS pet's model. Approved by the Cat council of South Africa this device is our most popular seller. We have since sourced international products added to our range after having

tested them which meets with our approval. We have clientele all over the world making use of our devices which works in any country who has GPRS reception.

GPS trackers however has it's disadvantages too, they use more power, and require charging every 1 to 5 days depending on the update frequency. Weak GPS signal (indoor) can also mean a location up to 200 metres off it's mark (Location based service = Cell Mast tracking), no GSM signal will also mean no updates. But as pets normally do roam outdoors where there is GPS & GSM signals, using a GPS pet tracker will give you the best chance of finding your missing pet.

A Streetwise Pets GPS tracker has no monthly subscription costs and we also offer a Whatsapp helpline to assist customers in getting to know how their product functions.

**Conclusion** - All the technologies currently available in the Streetwise Pets range have different ways of finding and preventing your pet from getting lost. So we hope that our readers now understand where technology is at with pet trackers and what suits them best.

For more in-depth answers please visit our commonly asked questions page to see the little things Streetwise Pets users ask. No trackers are perfect, you simply choose the tracker best suited in terms of functions, sizing, weight etc, for you and your pet. At Streetwise Pets we have the knowledge, experience and expertise to best advise you with various product offerings available.

If there are still unanswered questions in your mind, head to our common questions page for more in-depth explanations!