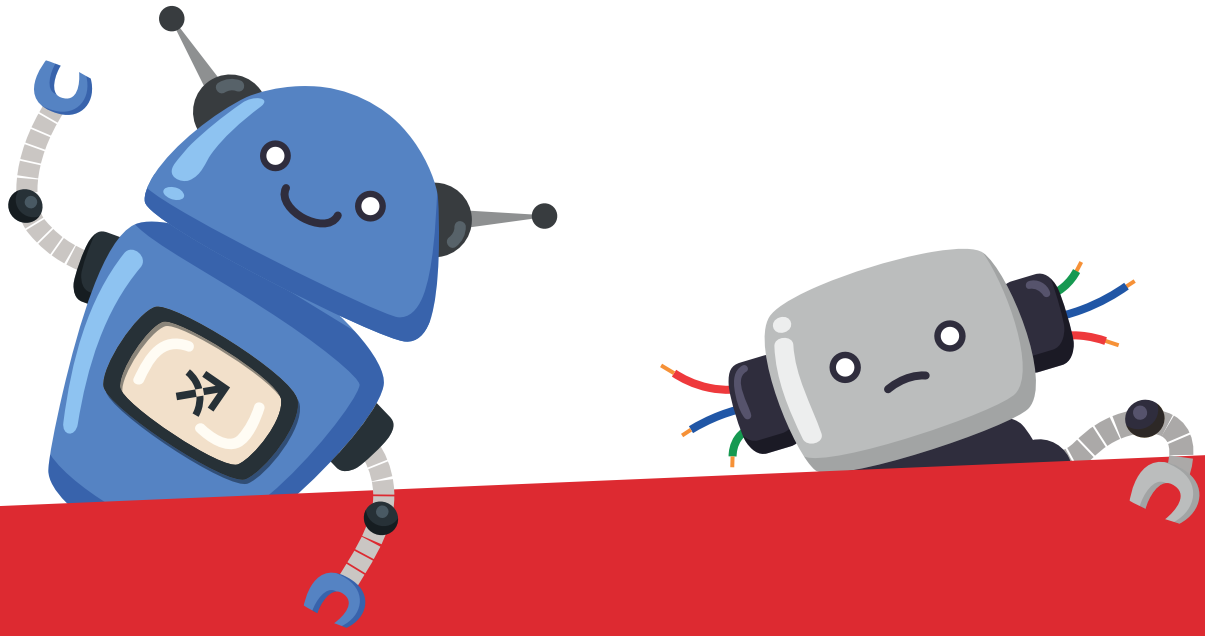
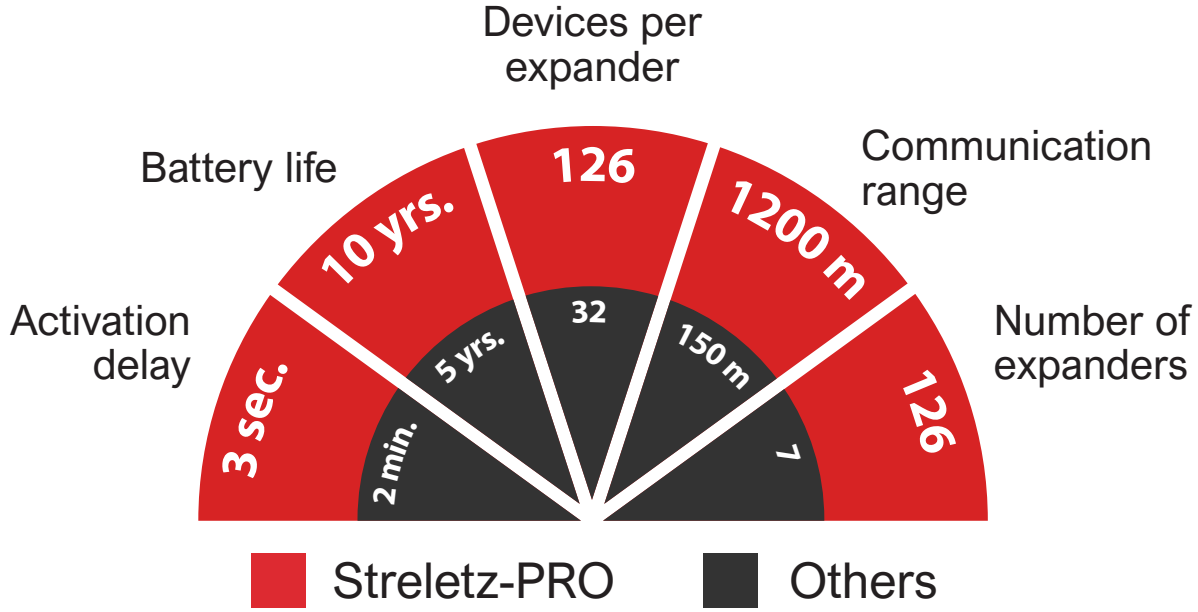
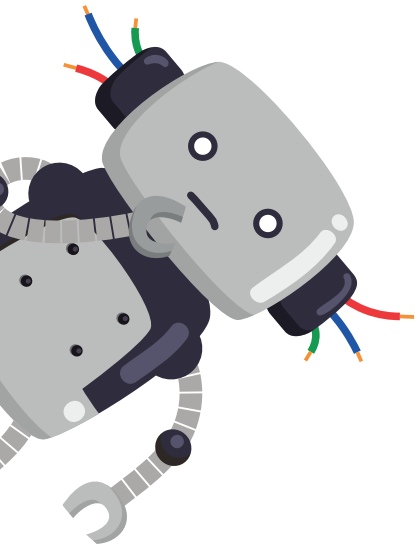
ARGUSSPECTRUM



WIRELESS FIRE SYSTEM
FREQUENTLY ASKED QUESTIONS

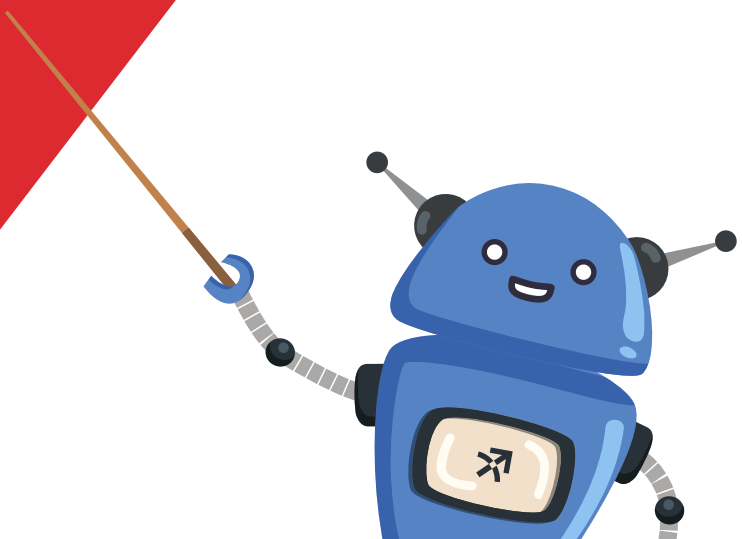




Why switch to wireless?

Let’s break it down to:

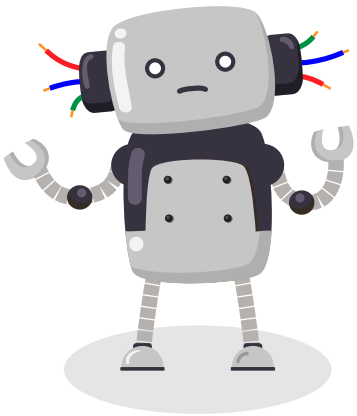
Technology & Business



LET'S TALK TECHNOLOGY

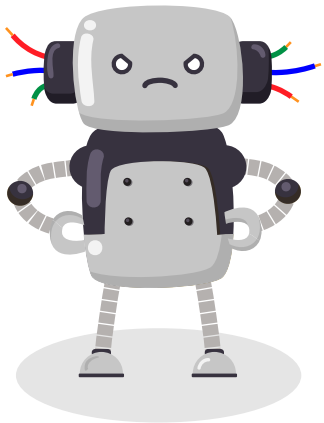
Never heard of "Streletz-PRO". Is this some kind of a new system? Fill me in, please!

Streletz-PRO is a new product line of wireless fire alarm devices from Argus Spectrum International. The system has advanced technical specifications including 10-year battery life, 1200-meter communication range in free air, and 126 expanders in the network.



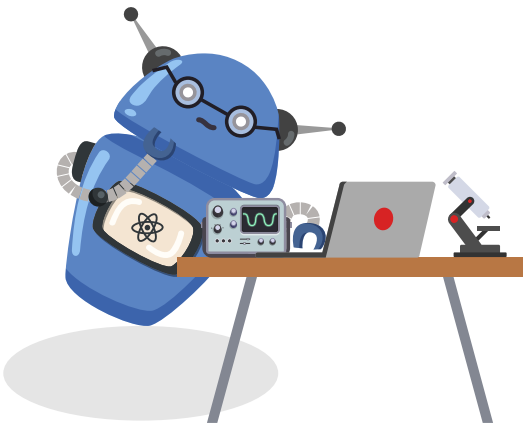
One of the main features of the system, that sets it apart from competitors is the "mesh network", which means that all communication paths in the system are established automatically.

I've had some negative experiences with other wireless solutions. Why should I expect Streletz-PRO to be any different?

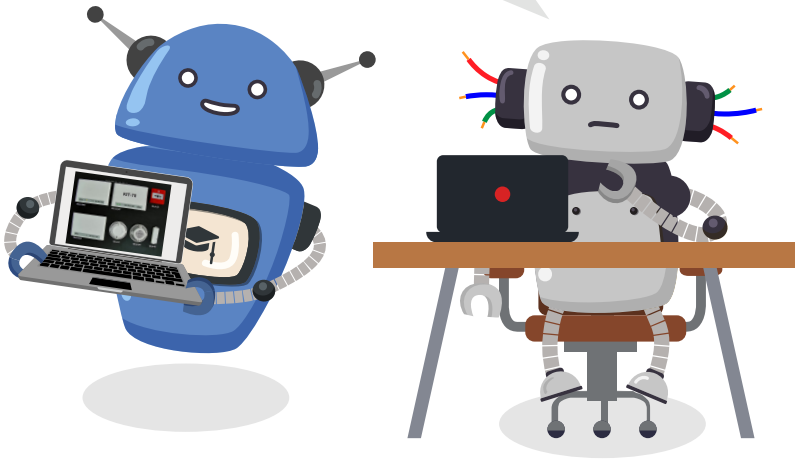


The Streletz-PRO product line has been substantially re-developed and enhanced from a previous wireless solution that was first introduced to the market more than 10 years ago. The developers of the system have extensive experience in wireless technology, and are highly alert to the type of problems fire alarm engineers are faced with.

Streletz-PRO was developed to address and solve these problems, thus creating a wireless solution that has no compromises. Items such as communication distance, battery life, and responsiveness during an alarm were a key focus of this hardware update. These issues were successfully challenged in Streletz-PRO but are still present in a number of wireless solutions from other manufacturers.



This new system is very unfamiliar to me. Why would I spend days or even weeks learning it, when I can just use what I already know?



It is really not all that complicated! The software we provide has a functional, but a simple stripped-down interface. Also, the system can be set up using the hardware menu on the translator module, which is very basic and self-explanatory.

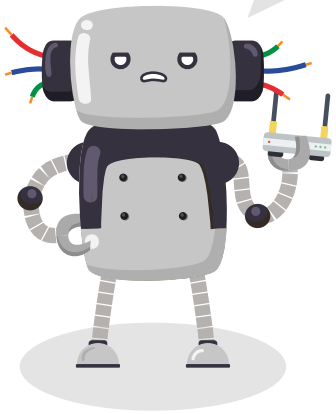
In addition, we provide a one-of-a-kind service, where you can connect to a remote desktop server and interface with the software, while simultaneously observing the equipment through a live camera feed. Online training and a variety of different guides we provide should allow you to achieve a good understanding of the system in less than a day.

Wireless alarms are a good solution for simple projects like hospitals, schools, or museums. But are they going to work in large buildings, like industrial facilities, factories, apartment buildings and so on?

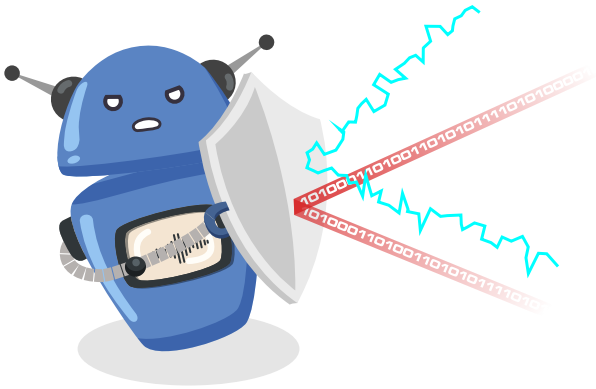
Wireless systems are often challenged to operate reliably in large buildings, but Streletz-PRO isn't! The communication protocol is designed in such a way that up to 2000 wireless devices can work in the same building. This means that you can install any number of translators and not have to worry if they are going to interfere with each other.

A communication range of 1200 meters in free air ensures that even the thickest walls can be penetrated by wireless signals. Finally, the translator supports up to 126 expanders, which allows you to build a very robust and dense network.

Wireless systems can be rendered useless by other wireless equipment like Wi-Fi routers or radio stations. And it is possible to use a jammer to disable the fire alarm system, which puts the building and people at risk.

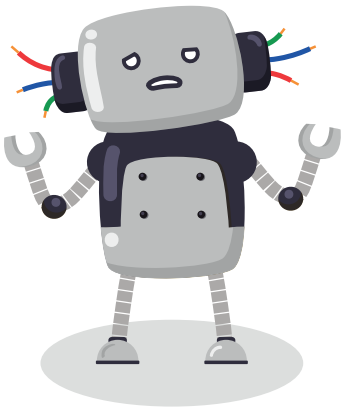


The radio frequency range of Streletz-PRO depends on the region but is typically free of any consumer electronics. Even if a different device was working on the same frequency as Streletz-PRO, the system can automatically switch to a different channel and continue operating normally.

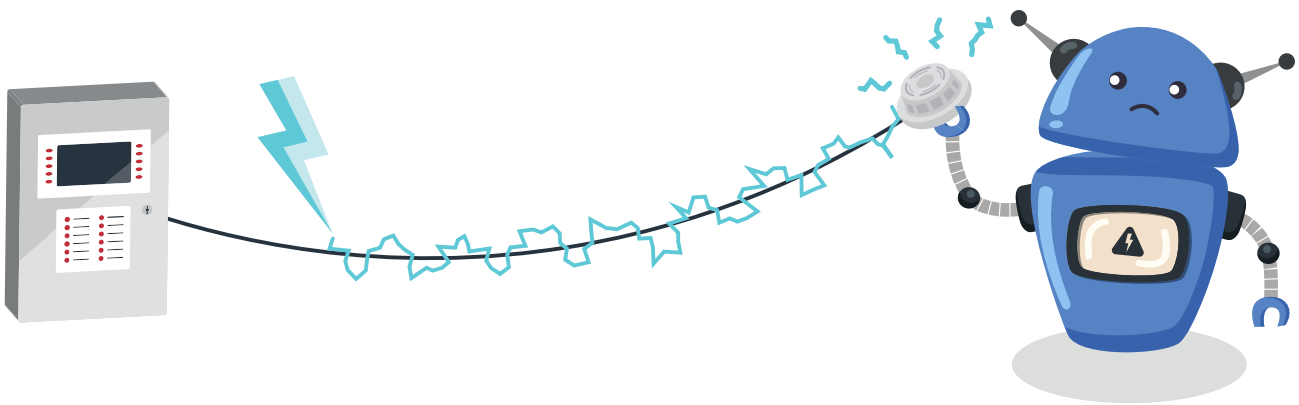


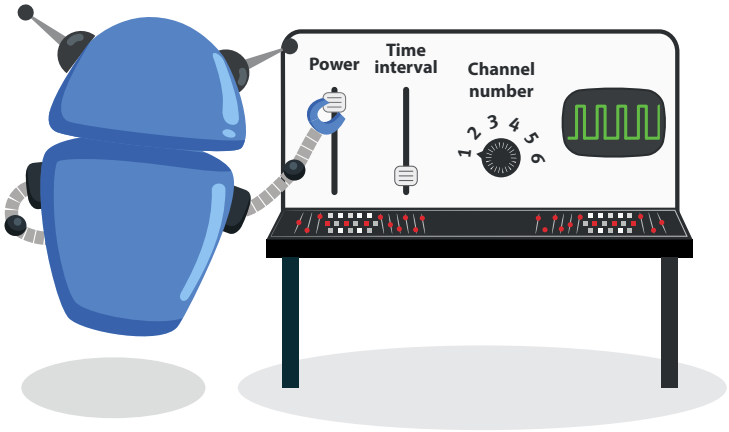
Streletz-PRO uses well-proven wireless technology and an orthogonal antenna design to ensure the highest levels of life safety, system reliability and security. All data packages are encrypted under the AES-128 standard, which protects the communication platform from hacks and malicious attacks.

A huge source of problems for wireless alarms is electromagnetic interference. Can it affect both wired and wireless connections?



The wiring in an addressable and conventional fire system can act as an antenna for all types of electromagnetic interference. These signals can reach the very sensitive photodiodes and cause the detector to generate a false alarm. However, the impact of interference depends on the length of the electrical conductor. The exposed conductor in a wireless device is the very short antenna so the impact of the interference will be negligible.

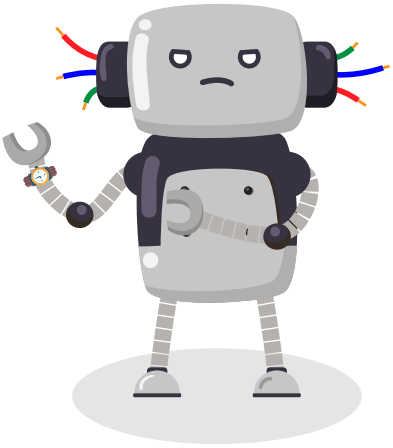




In addition, Streletz-PRO uses 3-step protection from natural and technological sources of interference.

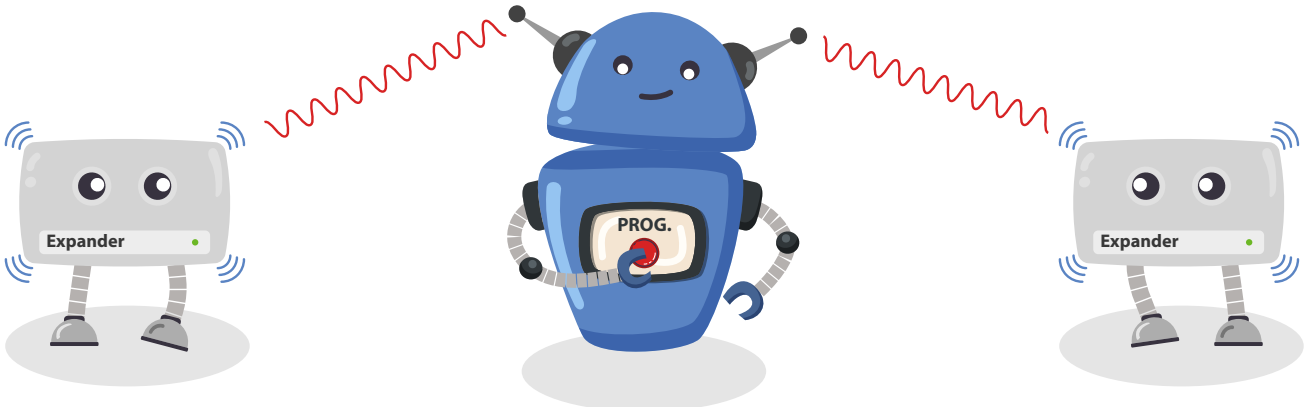
- The detectors start sending their signals more frequently until one of the expanders answers.
- Detectors boost up the effective radiated power.
- The detectors try using one of the 5 available backup frequency channels.

Is the time I save on the installation of a wireless alarm going to be wasted on the extensive programming of devices? Is it not quicker to install a wired detector and not have the time consuming process of linking the devices to the system?



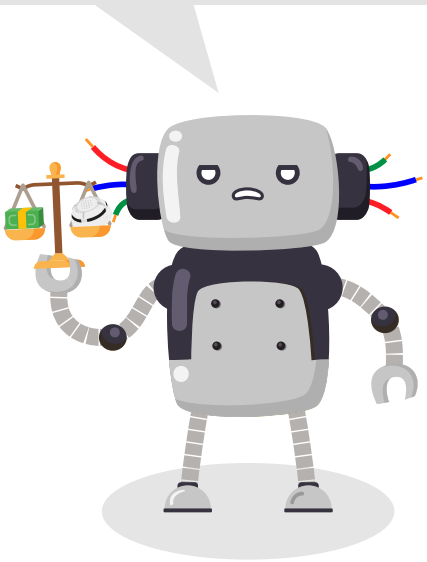
The process of linking Streletz-PRO devices is simplified to the point where it can't get any easier! All you have to do is to press two buttons: one in the software and one on the device itself. That's it!

Plus, the mesh network technology handles the issues typically associated with wireless alarms. When installing a traditional wireless alarm, you are going to have to decide which detector will be assigned to which expander. If some connections are weak you will need to reassign the detectors and this adjustment process can take a lot of time. The advantage of a mesh network is that you only need to position the expanders throughout the building based on their connection radius, and the network will automatically arrange itself in the most optimal way. This significantly speeds up the installation procedures.



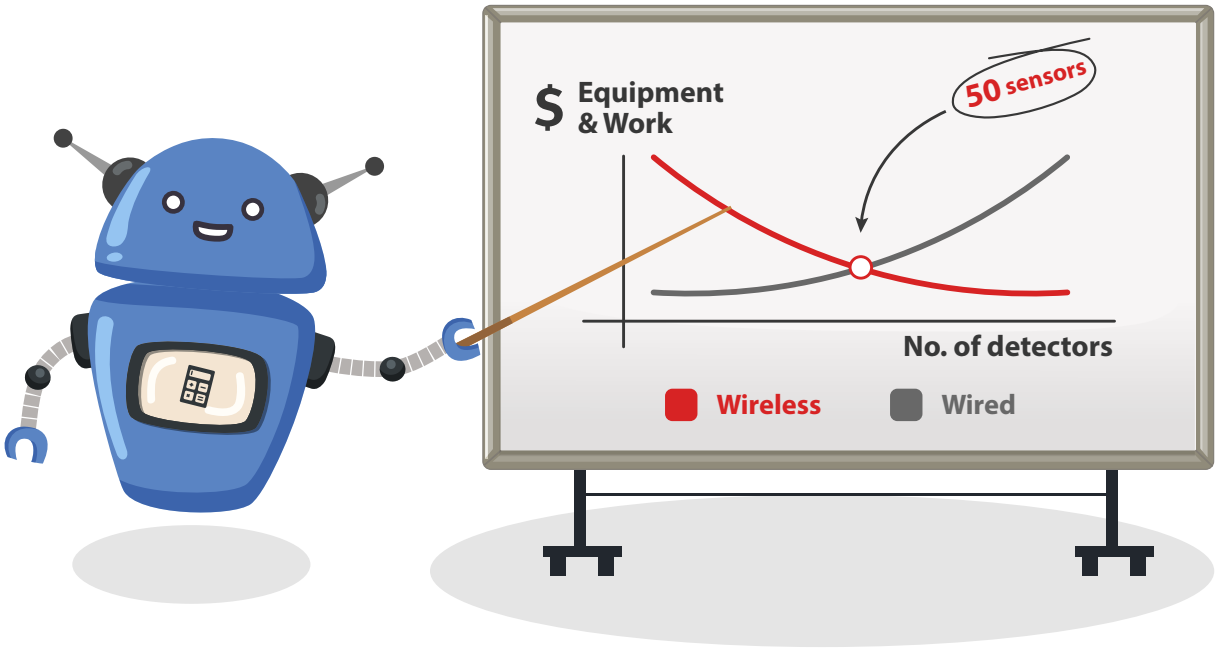
LET'S TALK BUSINESS

I fail to see how I am going to save any money with wireless technologies when wireless devices are more expensive than their wired counterparts.



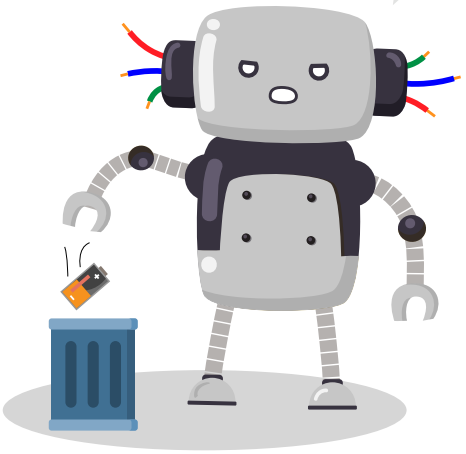
It is important to recognise and understand the 'total cost' of a fire detection system and consider the following factors:

- site survey and system design
- cost and installation time of fire rating cabling
- current requirements of COVID-19 restrictive working practices
- disruption and downtime to building operations
- reparation works in an existing building
- site commissioning time

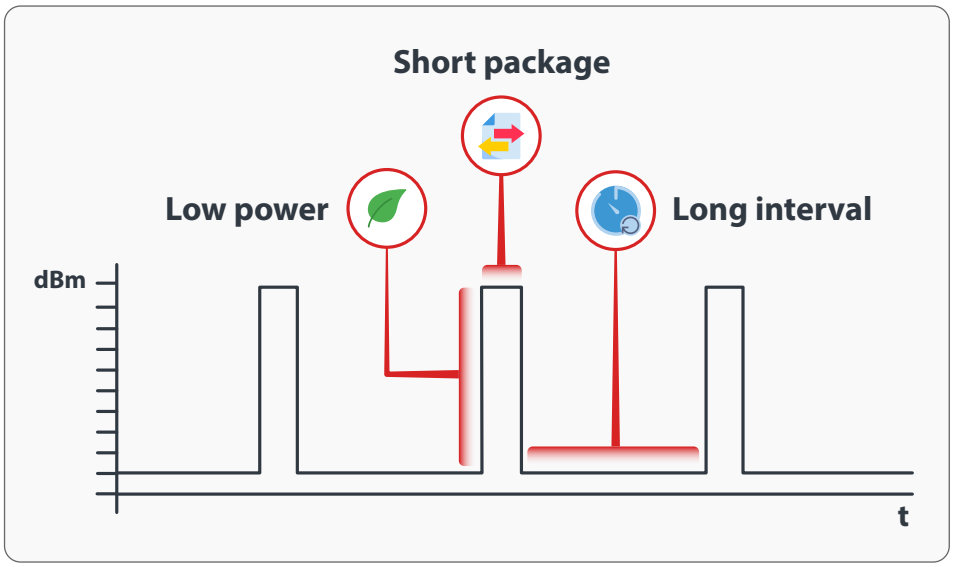


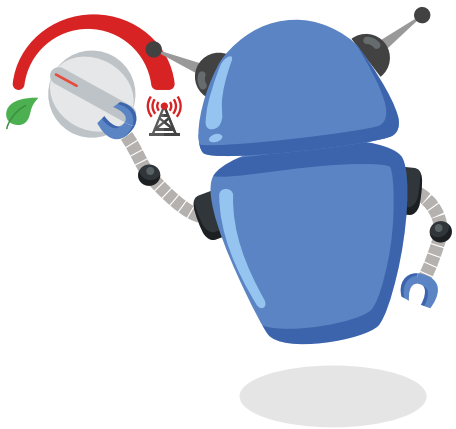
Wireless can save considerable site visits and labour time. **Wireless** can be installed in areas where traditional cabling is difficult or expensive. **Wireless** can be pre-programmed and save considerable site time.

Wireless alarms appear very convenient up until the point when it comes to the time to change the batteries. How does that affect the cost of ownership of Streletz-PRO?



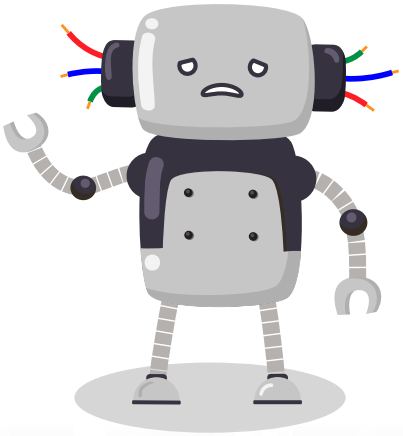
Battery life was one of the main priorities when developing the Streletz-PRO product line. The communication protocol was optimised so that detectors would consume as little power as possible. Specifically, the effective radiated power of the devices was tuned down to make the active period very brief and the time interval between packages was extended to 2 minutes. This allows the Streletz-PRO products to operate for 10 years on two regular 3V batteries.





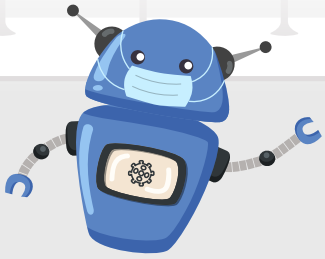
Streletz-PRO is a relatively new system which utilizes all of the latest developments in the battery industry, which has been significantly boosted by the recent rise of the electric car segment. New battery technologies spread around in different industries, including wireless alarms. This gives us an advantage over older systems that were developed just 3-5 years ago.

There is a global pandemic and economic recession affecting the entire world right now. How can wireless systems effectively provide a benefit to me in this situation?



It is believed COVID-19 will be with us for some time. This will effectively change the way we work. The installation of wireless systems will positively enable:

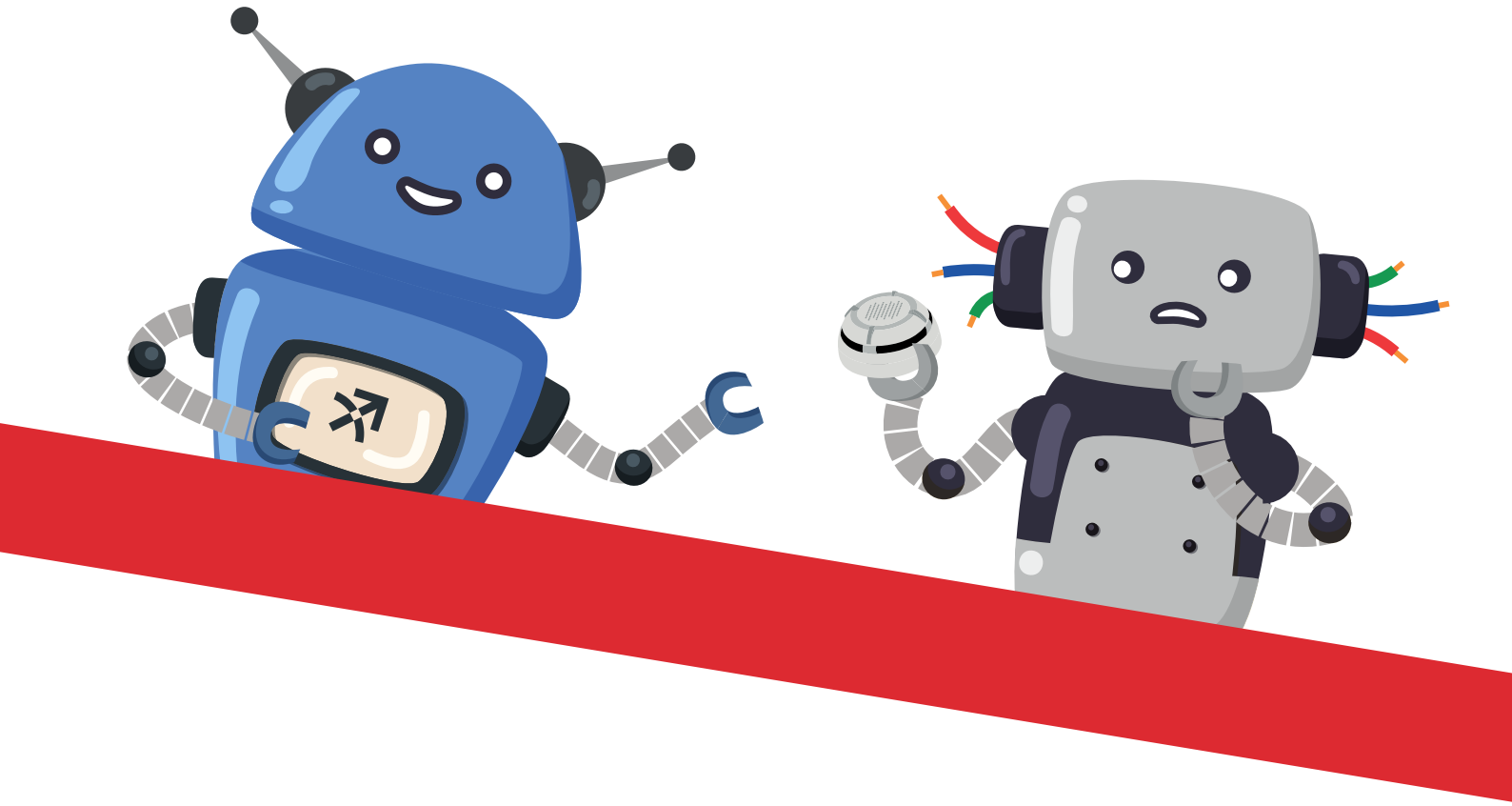
- less installation time and engineers on the project site
- reduced interfacing with other trades
- more efficient working within social distancing practices
- limited disruption for the end user



CONCLUSION

In conclusion, wireless fire alarms are not only more technologically advanced, but also much faster and easier to install than wired systems, while providing the same economic value in terms of cost effectiveness.

WIRELESS	WIRED
Mesh network	Loop connection
Days for one project	Weeks for one project
Minimal skills	Special qualification
Equivalent cost	



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