

## Customer Success Story

# Vaccine temperature monitoring

Thingsquare helped a leading medtech company add wireless monitoring to their temperature sensors



Customer:  
**Leading medtech company**



Market:  
**Medtech**



Outcome:  
**New wireless product line**



Vaccines must be stored at very specific temperatures. This requires constant monitoring, which is difficult because the freezers are deep and have thick walls.

Wireless meshing makes the sensors work even inside deep freezers.

The result is a new product line of wireless temperature sensors that work even in deep freezers.

### Challenge

Vaccines are stored inside big freezers with very cold temperatures, with thick insulating walls.

The thick walls make wireless communication difficult.

Freezers are also often placed in deep cellars, making wireless communication even more of a challenge.

Ordinary WiFi or cellular technologies are not able to get through.

## Solution

By adding one chip to the existing temperature sensor design, we added a wireless mesh network to the sensors.

The mesh network runs on the 915 MHz band, which has a long enough range to reach down into the places where the freezers are kept.

Because it is a mesh network, repeaters can be placed both inside and outside of the freezers to further improve the range of the wireless network.



The wireless temperature sensor system

## Outcomes

- Adding a wireless mesh network enabled monitoring even in places where traditional wireless technologies could not reach.
- Thingsquare developed a solution together with the customer that fit the specific criteria of vaccine monitoring.
- The customer was able to launch a new product line of wireless temperature sensors.

# Let Thingsquare Help You Succeed With Your Wireless Project

Check out our IoT solution planner at

[www.thingsquare.com](http://www.thingsquare.com)