



## Evolv Health and Safety

Evolv is dedicated to safety, quality and consistency in the delivery of our products, as well as providing accommodations for use by people of all abilities. Products undergo testing and certification to meet various usage requirements defined by national and international governments and agencies. Our products are safe for both visitors and daily operators.

### Evolv Express

Evolv Express is a crowd screening system that keeps high volume entrances flowing by reliably detecting guns and metallic IEDs as visitors walk through at a natural pace. It utilizes the same frequency range as the electronic theft prevention devices that have been widely deployed in thousands of stores with tens of thousands of people walking through them daily.

### How It Works

The Evolv Express system uses extremely low frequency radio waves (ELF) to screen for firearms, knives and metallic IEDs as visitors pass through at a normal pace. Its wide, two-lane configuration supports multiple people passing through simultaneously, resulting in extremely high-throughput screening and an unobtrusive visitor experience.

The extremely low frequency radio waves (ELF) used by the Evolv Express induce magnetization and/or currents in metal objects passing through, both of which can be characterized via magnetic polarizability tensors. Using our physical models, the Express recovers the data from the magnetic polarizability tensors and extracts features from them, which in turn correlate with physical properties of the object including volume, shape, conductivity, and permeability. Using large databases of threats, including firearms, metallic IEDs, and other threats as well as databases of typical benign objects, including keys, cellphones, belts, shoes, coins, tablets, and laptops, the classifier is trained to distinguish between the two classes via machine learning techniques.

### Comparable Use of Extremely Low Frequency Radio Waves

Evolv Express uses extremely low frequency radio waves (ELF) in the range used by Electronic Anti-Theft Systems (EAS), widely deployed in retail settings for loss prevention. Implantable electronic medical devices *may* be affected by electromagnetic radiation emitted from devices that operate in this range. (1)

### Implanted Electronic Medical Devices

The US Food and Drug Administration (FDA) has determined the likelihood of EAS systems interfering with implanted medical devices is extremely low, and any effects on the implant and the wearer were typically transient and unlikely to cause clinically significant symptoms in most wearers.

- The FDA recognized the likelihood of ELF systems interfering with implantable electronic medical devices is low, however they believe implant wearers should be notified wherever and whenever extremely low frequency radio wave systems (ELF) are in use. (2)
- Appropriate language for such labeling or signage may include: "Electronic Security System in Use."

For Evolv Express, the same approach and considerations should be embraced by individuals with implanted electronic medical devices.

### Pregnancy

Most common exposures to low frequency radio waves (also known as nonionizing radiation) are not considered hazardous to you or your unborn baby. For example, computer screens and cell phones use nonionizing radiation at exposure levels that are considered safe. A manual screening alternative is recommended for anyone who has safety concerns or feels uncomfortable about walk through screening.

For questions or direction specific to your personal situation, it is recommended that you consult an objective third-party medical professional.

Evolv Technology protects everyone's fundamental right to be safe in all the places people gather. The company is a leader in preventing threats from weapons and bombs before they occur by consistently scanning everyone without the need to stop or empty pockets. With our first product, Evolv Edge, a positive visitor experience is balanced with a proactive approach to enable security anywhere, without disruption to traffic flow – including at transportation hubs, sports stadiums, entertainment venues, hotels and conference centers, airports, special events, houses of worship and government agencies. Tested, proven and certified.

(1) American Heart Association Journal, Circulation; [Effects of External Electrical and Magnetic Fields on Pacemakers and Defibrillators: From Engineering Principles to Clinical Practice](#); Beinart, Roy M.D. and Nazarian, Saman M.D., December 2013

(2) U.S. Department of Health and Human Services, Food and Drug Administration, Center for Devices and Radiological Health, Electronic Product Devices Branch, Division of Enforcement III, Office of Compliance; [Guidance for Industry, Labeling for Electronic Anti-Theft Systems](#); August 2000