



## A simple plastic liner

Indeed. The form is quite simple, but also flexible. It is a shower curtain, which is usually rectangular in shape if it is laid out flat. The plastic material is flexible enough to accommodate a variety of situations.



## Antenna

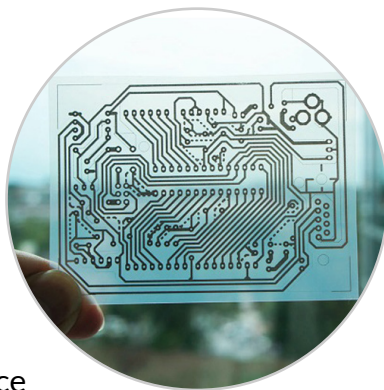
An embroidered spiral antenna made of threads with filaments of copper at the center, enameled with pure silver and measuring approximately 6 inches across can transmit signals at frequencies of 1 to 5 GHz with near-perfect efficiency. The spiral is well-suited to broadband communication.



Data are transmitted from the curtain circuitry to a smartphone via the antenna. Bluetooth Low Energy (BLE), also called Version 4.0+ of the Bluetooth specification, is the power- and application-friendly version of Bluetooth built for the Internet of Things (IoT).

## Circuitry

The connection point between the curtain and the receiving device is the paramount bridge to the connected world. Within the curtain, a web of circuitry and sensors which monitor the health of the algae layer, form the internal infrastructure.



## Algae

Yes, algae or dinoflagellates; those tiny microorganisms responsible for that green sludge you might find on a pond. This curtain exploits the process of photosynthesis that these algae carry out to convert light energy into chemical energy that can be used as fuel.

