### **SmartHome**

## Comcast (and others) Supporting Matter

Comcast used CES to officially announce that they will support Matter in their new gateways. This was not unexpected because Comcast sits on the board of Connectivity Standards Alliance (CSA), the group that created Matter. The board also includes Apple, Amazon, Google and Samsung. Matter is a common standard that they (and hundreds of other CSA members) agree to support to create a common, interoperable solution for the Smart Home and Internet of Things. CSA is not the first alliance to try to solve this problem, but they are a group with tremendous market presence. Their standard should be made public this Spring and we should see new products before Christmas.

### Sleep Number – 360 Smart Bed+

The Sleepnumber 360 smart bed has been around for a couple of years. Their primary feature is to make your significant other so comfortable on his/her side of the bed that you can get some sleep on your side. New this year are sensors that evaluate your health while you're sleeping. SleepIQ is a measure of how well you sleep. A number of sensors (they didn't say which) measure your heart rate, respiration rate, sleep position and other things. They claim to be able to alert you to possible insomnia or sleep apnea. They can even track circadian rhythm and use AI to recommend strategies for better sleep. Sleep Number has collected 13 billion hours of sleep data and they are working with the Mayo clinic to evaluate it. New accessory furniture can provide sleep-friendly lighting and use white noise or active noise control to keep things quiet. The new Sleep Number bed won't be available until 2023, though, so you're on your own until then.

# Chipolo – "Find Me" Card Tracker



Bluetooth smart trackers like TrackR and Tile have been around for years. The more recent Apple AirTag has added Ultra-Wideband for greater accuracy. Chipolo has created the first credit card tracker format to be compatible with the Apple Find Me system. The embedded battery should last over a year and will authorize you to get a replacement at a 50% discount when the battery dies. (Note: I have the SafeDome tracker card which is 1.7 mm thick and features a Qi wirelessly rechargeable battery. I love it.)

# <u>Fresh Protal – Two-way Delivery Refrigerator</u>

The Fresh Portal is the new appliance we all need in the Covid age. It is a built-in delivery box that installs in your wall. It has an inside door and an outside door that connects to your home Wi-Fi and can be remotely controlled from your phone. You can also generate a one-time number code that the delivery person can enter to get access, so you don't have to be bothered. It can both refrigerate and heat (be sure you set that correctly), so your packages can be maintained at the proper temperature until you can retrieve them. It's Covid time, so of course it has UV light disinfection. It also has a built-in camera so you can be alerted when deliveries arrive or monitor activity live.



### Wireless Power (PowerCast, WiCharge, Ossia, others)

Speaking of wireless recharging, there were a few wirelessly powered devices at CES.

PowerCast make chips that can be embedded into products for long-range wireless powering or recharging (up to 10 m over 915 MHz or 2.4 GHz frequencies). Wi-Charge is a similar technology that communicates and transfers power over Infrared frequencies (up to 10 m). Ossia introduced its Cota Power Table at CES this year. The table itself is powered by an Ossia transmitter disguised as a ceiling tile. The table contains Qi chargers that can then charge any Qi compatible device.

### Snowbot – Robot Snowblower



Snowbot is an electric snow blowing robot that will clear snow from your driveway and sidewalk. The Snowbot is fully autonomous and will clear up to 12 inches of snow in a single pass. It runs for an hour and a half on a single charge. The Snowbot is guided by three Ultra-Wideband (UWB) beacons that provide the Snowbot with enough positional information to autonomously steer it with 1 cm accuracy. No more digging up the grass. You can control your Snowbot remotely with a smart phone app or a video game style controller. It uses lidar to avoid obstacles and has various features to stop it in an emergency or protect the crowd of neighbors who gather to watch.

### **Smart Cities**

### Ekin – SmartCcity IoT Pole



If you're going to mount outdoor cameras in your smart city, you need a place to put them. The Ekin smart city IoT pole is just such a platform. A single pole can house a Wi-Fi access point, a configurable color spotlight, a speaker, and an environmental sensor (air quality, carbon emissions). A smart traffic module records high resolution video or photos. It can read license plates and even identify car models. It can detect parking and traffic violations, then automatically generate citations. A surveillance module can recognize criminals and count crowds segmented by age and gender. There's even a charging station for electric vehicles. Ekin software can manage all your smart poles from their command center software.

### *Infiniq – AI Grocery Clerk*



The Infiniq AI Counter is a grocery store checkout system that uses cameras and AI to scan groceries without barcodes or consistent shapes (like produce and bread). It can even tally up the grocery bill and understand customer behavior patterns. This is a skill I have yet to master.