CLAIMS

What is claimed is:

1. A method for preparing an adhesive tape platform with a battery for disposal at an end of the adhesive tape platform's useful life, comprising:

   determining, by the adhesive tape platform, the end of the adhesive tape platform's useful life;

   responsive to the determining, by the adhesive tape platform, performing an action to drain remaining energy stored in battery life of the battery;

   determining when remaining life in the battery stored in the battery is less than a threshold level; and

   transmitting a notification indicating the adhesive tape platform is ready for disposal to an Internet of Things (IOT) system that includes the adhesive tape platform.

2. The method of claim 1, wherein determining the end of the adhesive tape platform's useful life comprises receiving, from the IOT system, an instruction indicating the end of its useful life for the adhesive tape platform.

3. The method of claim 1, wherein the adhesive tape platform comprises one or more sensors and determining the end of the adhesive platform's useful life for the adhesive tape platform comprises determining, based on sensor data from the one or more sensors, an end-of-life event for the adhesive tape platform has occurred.

4. The method of claim 3, the end-of-life event comprising determining that a current location of the adhesive tape platform corresponds to a destination location of an asset being transported in association with the adhesive tape platform.

5. The method of claim 3, the end-of-life event comprising determining that the sensor data indicates a predefined movement of the adhesive tape platform.

6. The method of claim 5, the predefined movement corresponding to removal of the adhesive tape platform from an asset.

7. The method of claim 5, the predefined movement corresponding to a user action of shaking the adhesive tape platform.

8. The method of claim 1, wherein the action to drain remaining energy stored in the battery comprises activating one or more internal circuits of the adhesive tape platform to increase battery drain.

9. The method of claim 1, wherein the action to drain remaining energy stored in the battery comprises removing one or more parts from the battery to stop the battery from producing electricity.

10. The method of claim 1, wherein the action to drain remaining battery life of the battery comprises inputting air to the battery to alter chemistry of the battery to stop the battery from producing electricity.

11. The method of claim 1, wherein the action to drain remaining energy stored in the battery comprises controlling the adhesive tape platform to increase power consumption by activating one or more functions of the adhesive tape platform at an increased rate.

12. The method of claim 11, the one or more functions comprising one or more of activating a wireless receiver, transmitting a wireless signal, connecting to a cellular network, intense processor usage, and reading one or more sensors.

13. The method of claim 1, further comprising transmitting, to the IOT system, a second notification indicating that the battery of the adhesive tape platform is not ready for disposal when remaining life in the battery is not below the threshold level after a predefine battery drain period.

14. The method of claim 1, further comprising repeating the transmitting of the notification to the IOT system until electrical power from the battery is insufficient for operation of the adhesive tape platform.

15. The method of claim 1, wherein the adhesive tape platform comprises: a flexible substrate;
a flexible cover layer on the flexible substrate;

a device layer in between the flexible substrate and the flexible cover layer comprising at least a wireless communication system;

the battery; and

a circuit connected to components of the device layer and the battery.

16. The method of claim 15, wherein the wireless communication system comprises one or more of a Bluetooth communications system, a Bluetooth low energy (BLE) communications system, a Zigbee communications system, an RFID communications system, a Wi-Fi communications

system, a LoRa communications system, a LoRaWAN communication system, a GPS communications system, a satellite communications system, and a cellular communications system.

17. The method of claim 11, wherein the one or more functions comprises sensing the adhesive tape platform's current location using a wireless communications system of the adhesive tape platform.

18. The method of claim 17, wherein the one or more functions comprises transmitting data or attempting to receive data using a wireless communications system of the adhesive tape platform.

19. The method of claim 1, further comprising transmitting a notification to a user client device comprising instructions to remove the battery from the adhesive tape platform.

20. The method of claim 3, wherein the end-of-life event comprises determining that the adhesive tape platform is in a disposal area based on wirelessly receiving notifications from a number of other adhesive tape platforms in the disposal area, the notifications indicating the other adhesive tape platforms are ready for disposal.