Project Idea: The Electrical charge box

This device is installed between the power receptacle and a given electrical device. In order for the user to turn on the power, they must scan their fingerprint. If their print is recognized, the circuit is turned on and all electrical activity is gathered. When the user is finished using the device (10 minutes of inactivity, or they log out), a record is created and sent to the cloud for billing.

Control options

* The administrator can remotely disable the device, either on demand or on a schedule.
* Can be configured so only a specific list of users can use a given device (i.e. they’re trained for it)

Status lights:

* Yellow, device is on and ready
* Green, device is logged in and ready
* Red, device is remotely disabled

Buttons:

* Log out of the device

Screen:

* When not in use, displays status
* When logged in, displays name of user
* When is use displays power usage
* When locked, displays “Disabled by Admin”

Where would you use this:

* FUZE – access control for machinery so that unauthorized folks aren’t able to use equipment they are not trained on
* Need to keep track of usage for maintenance
* Need to keep track of usage for billing