

## Battery sorting instructions for volunteers

Please wear older clothing that is OK to get dirty.

Wear protective nitrile gloves and it is suggested to wear breathing masks. Both gloves and masks are provided by PlanetCon.

### Battery drop zone:

1. **Each battery “depositor” needs to sign for their drop-off on a sign-in sheet.** This is a requirement from Metro. The sheet has fields for donor signature, street address, city, and zip code.
2. **Batteries must be from individuals.** Do not accept any batteries from any non-residential groups, including non-profits, churches, schools or businesses.
3. Only accept batteries up through laptop size. **Car batteries and other larger batteries can not be accepted.**
4. Those that have sorted their batteries may empty their containers into the designated buckets.
5. If they have some they don't know where they go, or they haven't sorted, they should move past the labeled buckets and deposit into one of the unsorted batteries buckets.
6. Work with sorters to move full buckets off the table. Empty buckets are stored underneath the table.
7. Do not accept empty containers from the “depositor”.

### Sorters: Presort buckets

1. Only sort one bucket type at a time. Do not dump a different type of battery onto the sorting board before the board is clear.
2. Remove any batteries that do not match and put into the appropriate final sorted bucket.
3. See sorting notes below for additional information about sorting categories and safety of damaged batteries.
4. Put full final sorted buckets into area for removal to truck
5. As time allows help sort the non-sorted batteries group.

### Sorters: Non-Sorted buckets

1. Empty your bucket into the center of the sort board.
2. Remove all batteries larger than 9 volts to the large batteries area
3. Remove all alkaline batteries into the final sorted bucket
4. Remove all button and coin batteries into the plastic bag. If time permits, sort button (small and fat) batteries into a separate bag from the coin (self-descriptive) batteries.
5. Remove all lithium non-rechargeable batteries. If any are damaged place individually in a zip bag and put into damaged batteries bucket.
6. Remove all Lithium rechargeable batteries into the final sorted bucket
7. The remaining batteries should be miscellaneous re-chargeable batteries. These can all go into the same final sorted bucket.

8. If there are any batteries you can't sort, place them into a bucket to be reviewed later.
9. Put full final sorted buckets into the area for removal to truck.
10. As time allows help the button and coin battery sorter.

**Sorters: Button & Coin buckets**

1. If needed, sort the button and coin batteries into separate piles/bags
2. sort out any rechargeable lithium batteries into a separate pile/bag
3. sort any non-rechargeable lithium batteries into a separate pile/bag
4. Begin taping terminals. Place a piece of tape sticky side up on the table. Lay down all of one type of battery onto the tape. Once tape is full, lay a 2<sup>nd</sup> piece of tape sticky side down on top of the first
5. Check with Metro- do all the terminals need to go in the same direction?

**Tapers:**

1. Tape the terminals of all lithium-based batteries
2. Tape the terminals of any damaged batteries that are NOT alkaline

**Safety Notes:**

1. Batteries are corrosive, please wear your personal protective equipment, gloves and masks. Wash your hands before eating or rubbing your eyes, etc.
2. Damaged batteries (non-alkaline) need to be treated with extra caution.
  - a. Look for any battery that is swollen, corroded, leaking or showing burn marks or other physical damage.
  - b. If it is a lithium-based battery place it in its own zip bag.
  - c. All other damaged batteries need to have their terminals taped
3. Buckets full of batteries are heavy. Do not attempt to lift a heavy bucket by yourself. Always use safe lifting techniques.

**Final battery sorting categories:**

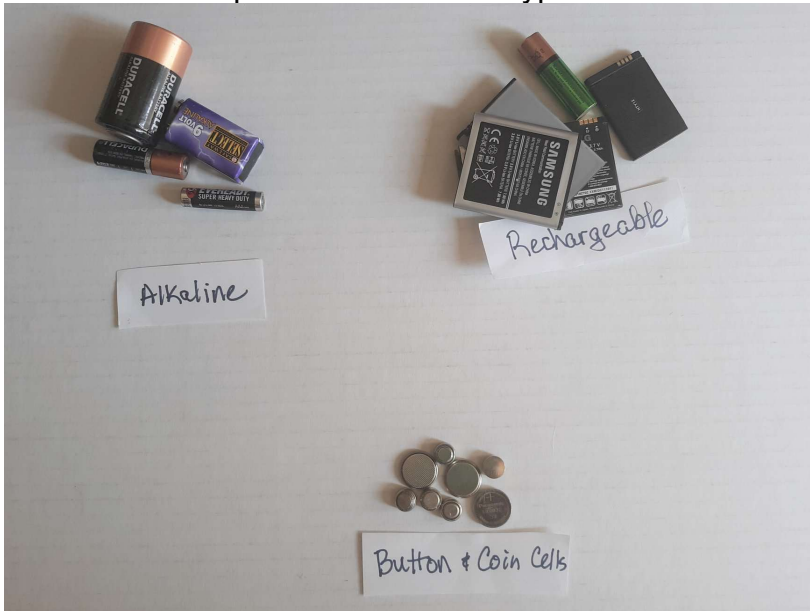
- a. Large batteries of any kind- rated larger than 9 volts
- b. Alkaline batteries 9 volts or less
- c. Lithium batteries (terminals taped)
- d. Rechargeable lithium batteries (terminals taped)
- e. Other rechargeable batteries less than 2 pounds
- f. Button batteries lithium based (terminals taped)
- g. Button batteries rechargeable lithium (terminals taped)
- h. Button batteries all others (terminals taped)
- i. Coin batteries lithium based (terminals taped)
- j. Coin batteries rechargeable lithium (terminals taped)
- k. Coin batteries all others (terminals taped)

The 2 photos directly below are from June 2018 PlanetCon battery sorting.

- On the left, notice the sorters wearing gloves, and using a sorting table. This sorting table prevents the batteries from rolling off during sorting.
- On the right, notice the buckets are plastic. Metal buckets are not good for storing batteries.
- Large buckets get very heavy when filled, so be sure each bucket is no heavier than 25 pounds.



Below are examples of some of the types of batteries to bring to PlanetCon



Battery Sorting layout from June 2019 is below

