

E-WASTE MANAGEMENT

by Mac Fix Station



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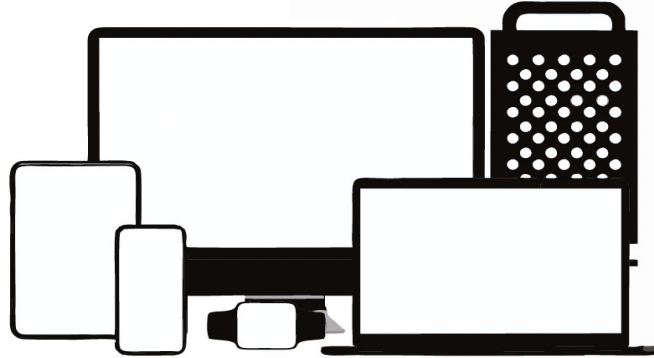
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1. Who are we?



 **We Breath Life into Gadgets** 

Mac Fix Station

MFS has been working in the **gadget and tech** industry for over a decade, providing key **operational services** to large corporates and government entities in different sectors.

We have catered to more than **a million retail customers** till date in the gadget repairs, service and sales industry, through our network of **6+ service stations** across Mumbai and Pune.



2. What really is E-Waste?



Electronic waste or e-waste describes discarded electrical or electronic devices, which are nearing the end of their “useful life”.

These include broken/dead gadgets like laptops, mobile phones, computers and their parts, printers, appliances etc.



Home Appliance

TV, Microwave, Fridge,
AC, Fan, Lights, etc.



Communications

Cell Phones, Desktops,
Laptops, Hard Drives, etc.



Entertainment

DVDs, Radio, Video
Games, Stereo, etc.

***E-waste is comes from more source
than you probably thought it did!***



Utilities

Remote Controls, Lamps,
Cables & Cords, etc.



Office Equip.

Copiers/Printers, Servers,
Wi-Fi, Security systems, etc.



Hospitals & Others

Motored Beds, Electric
Medical Equipment, etc.

Typical E-Waste Composition

Plastic

Casing, base,
parts' fittings etc.



40%

Toxic Materials

PCB contains most
of the toxic materials



30%

Lithium

Most gadgets have
inbuilt batteries



30%

3. Why is E-waste important to be dealt with?

The most important reason that E-waste needs to be treated differently than any other waste is the Toxic materials they hide in them.

Most electronics contain some form of toxic materials, including beryllium, cadmium, mercury, and lead, which when gets buried at a landfill, can dissolve in microscopic traces into the gross sludge that permeates at the landfill. Eventually, these traces of toxic materials pool into the ground below the landfill. This is known as leaching.

The more E-waste and metals at the landfill, the more of these trace toxic materials show up in the groundwater.



Benefits of Recycling

Helps keep Toxins out of the nature by reducing the landfill

Parts of discarded electronics can be used to make new ones saving energy and Earth's natural resources



Prevents pollution by reducing the emission due to the incineration

Several precious metals like Gold, Silver, Copper, Bauxite, etc. can be extracted and reused

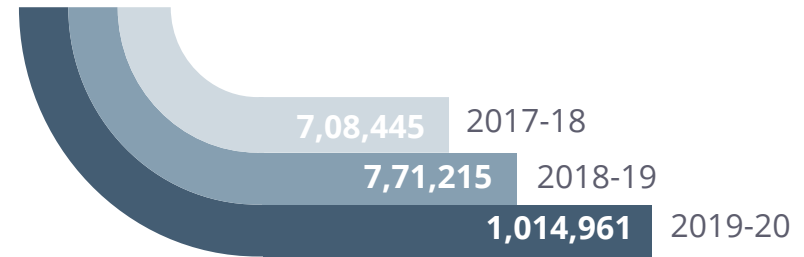
E-waste in India

In 2019-20 alone, India generated about **1,014,961 tonnes of E-Waste** for 21 types of electrical and electronic equipment (EEE), a sharp 32% increase from the previous year. This is the amount of E-waste accounted for, the unaccounted figures are estimated to be much higher.

According to 'Global e-waste monitor 2020', 53.6 million tonnes of electronic waste was generated worldwide in 2019, of which only 17.4% was recycled. India is the world's third biggest contributor – with **3.2 million tonnes** of e-waste generated a year, **three times more than what was collected in the same year.**

Reports estimate that **only about 10%** is collected of the E-waste generated in the previous years.

With growing 'work from home' culture due to COVID-19 pandemic, the usage of electronics and gadgets has sharply increased, which will soon trigger a further jump in E-waste generation.



E-Waste Collection in India (ton)

4. What are we doing to help?

Once sourced, the waste is segregated into two categories, one - completely dead devices and second - which can still be refurbished / reused. These two categories then further classify into either of the four destinations:

Plastic Recycling ●

Plastics classified into recyclable & non-recyclable then sent for shredding & sorting

Lithium & other toxic materials ●

Lithium, Mercury, Lead and other toxic materials are extracted and sent for recycling

RECYCLE



○ Repairs & Refurbish

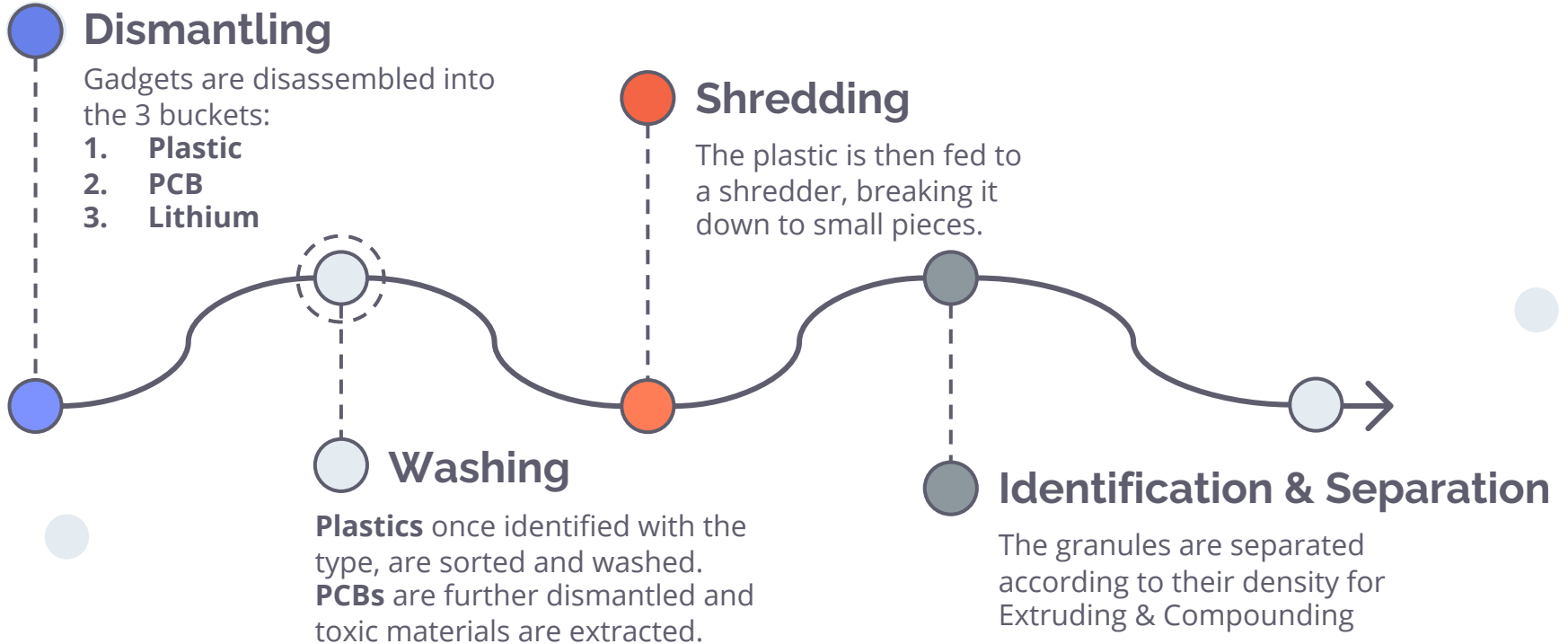
Products that are still in a healthy condition are refurbished for reuse, to reduce the inflow of new products in the market

● Donations

In partnership with foundations like Planet Help, healthy reusable products are donated to the needy, helping the society grow!

REUSE

5. How is it done?



Mac Fix Station Infrastructure

Mac Fix Station with a license to dismantle E-Waste from the Maharashtra Pollution Control Board (MPCB), is setting up a state of the art plastic recycling plant in Chakan, Pune, with a capacity of handling 800 Mt ton of E-waste and 1200 Mt ton of plastic waste.

In the same facility, PCBs are dismantled and the toxic materials from the same are extracted and recycled / disposed off.

We're in parallel working to set up the infrastructure to set up the Lithium recycling unit, as Lithium comprises of a large chunk of e-waste.



Plastic

Washed, Shredded,
Segregated and
Extruded/Compounded



PCB

Dismantled to carefully
extract toxic elements



Lithium

Extracted then either sent
for recycling or disposed
off appropriately

6. Why are doing this?

Coming from a tech and gadgets background, where we provide hardware AMC services in the B2B as well as a wide range of gadget repair services, we already have access to a lot of electronics which currently do not end up being recycled properly.

Mac Fix Station has been working with some NGOs, where we strive to help the needy with the resources they need for digital education. Continuing this vision to give back to the society we live in, MFS has been working seamlessly to establish partnerships to initiate e-waste collection drives, saving our land and water from the toxic leaching.





Mac Fix Station

REUSE REDUCE RECYCLE

Thank You!

Reach out to us for further details or queries!



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