

Ceramic and Electrolytic Capacitor Assortments

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Electronics & Prototyping



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Capacitor assortments stock ceramic discs in picofarads and nanofarads plus electrolytics in microfarads with voltage ratings, covering decoupling, filtering and timing in every project. Electrolytics are polarised; ceramics are not.

Key Features

- Ceramic from 10 pF to 100 nF
- Electrolytic from 1 μ F to 1000 μ F
- Voltage ratings 16-63 V
- Labelled storage compartments
- Radial and axial lead forms

Typical Uses in the Workshop

- Decouple power rails in circuits
- Filter and smooth power supplies
- Set timing with RC circuits
- Block DC and couple AC signals

Safe Operation

1. Select the value and voltage rating
2. Mind the polarity of electrolytics (stripe = negative)
3. Place near the power pins for decoupling
4. Check the working voltage exceeds the rail
5. Test with a capacitor meter

SAFETY NOTES

- Electrolytics are polarised - wrong wiring can burst them
- Do not exceed the rated voltage
- Keep capacitors away from heat
- Discharge large capacitors safely
- Do not short charged capacitors

Maintenance & Consumables

- Keep the assortment sorted by family
- Check for bulged electrolytics - replace
- Store dry and cool
- Verify values with a meter
- Restock common values

Specification & Buying Notes

A combination ceramic and electrolytic assortment covers class circuits. Quality capacitors meet marked values; cheap ones drift and fail early.