

ESD Wrist Straps

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



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An ESD wrist strap is a band worn on the wrist connected by a coiled cord to earth, which equalises the voltage between the wearer and the work surface so sensitive components are not damaged by static. It is part of a basic antistatic workstation.

Key Features

- Adjustable conductive band with metal stud
- Coiled cord with 1 M ohm resistor built in
- Crocodile or plug earth connection
- Breakaway safety design in good straps
- Pairs with ESD mats and bench points

Typical Uses in the Workshop

- Protect ICs, transistors and modules during handling
- Guard against static during assembly and repair
- Use before touching bare component leads
- Part of the antistatic bench routine

Safe Operation

1. Fit the band snugly on the wrist, skin contact needed
2. Clip the cord to the mat ground point or earth socket
3. Test the resistance between band and earth
4. Work with both feet on the floor grounding point
5. Remove the strap before leaving the station

SAFETY NOTES

- Never wear the strap near live mains circuits
- The 1 M ohm resistor is for static, not shock protection
- Do not stretch or knot the coiled cord
- Check the band makes skin contact
- Only use listed, tested straps and cords

Maintenance & Consumables

- Test the strap resistance monthly with a tester
- Replace cords that fray or break
- Clean the band with a damp cloth
- Store straps coiled, not dangling
- Keep spares for the class sets

Specification & Buying Notes

Buy straps with visible resistance markings and replaceable cords. A bench tester that checks both strap and mat annually is recommended for safety-critical classroom claims.