

Touch Sensor Modules (Capacitive)

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Sensors & Modules

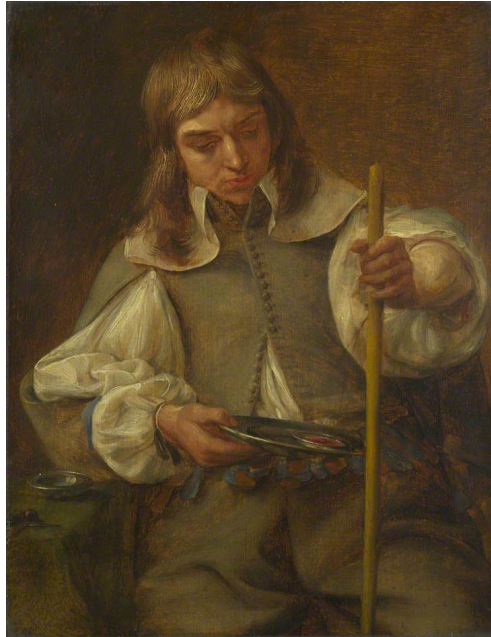


Photo: Gonzales Coques — Public domain — via Wikimedia Commons (Gonzales_Coques_(after)_-_Touch_(unidentified_sitter).jpg)

Capacitive touch modules detect touch through the human body's capacitance, with the TTP223 and TTP224 chips making any pad or wire a touch button. They replace mechanical buttons with invisible, wear-free inputs.

Key Features

- TTP223 (single) and TTP224 (quad)
- Digital touch outputs
- Adjustable sensitivity
- Works through thin panels
- 3.3-5 V operation

Typical Uses in the Workshop

- Build touch controls behind panels
- Replace worn buttons in projects
- Make interactive displays and games
- Hidden touch switches for models

Safe Operation

1. Wire power, ground and the output
2. Adjust the sensitivity jumper for the pad
3. Attach a touch pad or wire
4. Map the output to the program action
5. Test through the panel thickness

SAFETY NOTES

- Do not use touch modules for safety controls
- Keep the module away from moisture
- Check the sensitivity in actual conditions
- Mount clear of moving parts
- Store in antistatic bags

Maintenance & Consumables

- Clean the touch pads
- Re-tune sensitivity after changes
- Check the wiring and outputs
- Keep spare modules in stock
- Test the response periodically

Specification & Buying Notes

TTP223 modules in packs of ten cover class experiments; quad TTP224 suits multi-button panels. Quality modules trigger cleanly; budget ones double-trigger.