

Roller Chain and Sprockets

DT Workshop Equipment Reference — D&T / STEM resource for school workshops | Robotics & Mechatronics



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Roller chain and sprockets transmit power between shafts over distances with tough, efficient drive: 25, 35 and 40 pitch table chains suit robotics and machines. It is the motorcycle-heritage drive for high-load, long-run transmission.

Key Features

- Pitches 25, 35, 40, 50 standard
- Chain with connecting and master links
- Sprockets 9-60 teeth
- Steel, hardened or plastic sprockets
- Pre-stretched roller chain

Typical Uses in the Workshop

- Drive wheels, conveyors and lifts
- Dual-drive robot transmissions
- Long-distance power transmission
- Gates, hoists and machines

Safe Operation

1. Select chain and sprockets by pitch
2. Align the sprockets on parallel shafts
3. Cut the chain to length with a breaker
4. Fit a master link and tension to spec
5. Run then re-check the tension

SAFETY NOTES

- Chain drives pinch - guard them
- Keep fingers clear when the drive runs
- Check the master clip is fitted correctly
- Do not run a dry or binding chain
- Oily chains are slippery - wipe work areas

Maintenance & Consumables

- Lubricate the chain regularly
- Check tension and alignment
- Check for stiff links and wear
- Replace worn chain and sprocket pairs
- Keep master links in the kit

Specification & Buying Notes

Match the pitch to the load: 25 for light robots, 35/40 for drive wheels. Buy chain and sprockets from the same pitch family. Quality chain stretches less and lasts.