Steel

Steel is a strong, heavy metal sometimes used in FRC for high-strength or wear-resistant applications. While aluminum is more common, steel is chosen when extra strength or durability is required.

Why FRC Teams Use Steel

Steel is used because it:

- Has very high strength
- Resists bending and deformation
- Handles high loads and impacts well
- Works well for shafts and fasteners

Common Types of Steel in FRC

Mild Steel

- Easy to machine and cut
- Used for simple brackets or mounts
- Heavier than aluminum

Hardened Steel

- Very strong and wear-resistant
- Used for shafts, axles, and gears
- Difficult to machine without proper tools

Common Applications

- Drive shafts and axles
- Bearings and wear surfaces
- High-load mounting hardware
- Gearboxes and transmission components

Limitations

- Much heavier than aluminum
- Harder to machine and drill
- Can slow down robot performance if overused
- Requires stronger tools and more effort to modify

Key Idea

Steel is used in FRC when strength and durability matter more than weight. It is most commonly found in shafts, fasteners, and high-load components rather than full structural frames.

Revision #1
Created 25 June 2026 20:49:04 by eharis
Updated 25 June 2026 20:50:14 by eharis