

# General Overview

A tapped hole is a drilled hole that has internal threads cut into it so a screw or bolt can be directly threaded into the material without using a nut.

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## How It Works

1. A hole is drilled to a specific size (called a tap drill size)
  2. A tool called a **tap** is used to cut threads inside the hole
  3. A screw or bolt can then be threaded directly into the material
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## Why FRC Teams Use Tapped Holes

Tapped holes are useful because they:

- Eliminate the need for a nut on the back side
  - Save space in tight assemblies
  - Reduce part count
  - Allow clean, compact mounting points
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## Common Applications

- Mounting sensors
  - Attaching small brackets
  - Light structural connections
  - Situations where access to the back side is impossible
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## Limitations

- Threads can strip if over-tightened
  - Not as strong as bolt-and-nut connections in high-load areas
  - Requires correct drill size and careful tapping
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## Best Practice

- Always use the correct tap drill size
  - Start tapping slowly and keep it straight
  - Use cutting fluid when possible
  - Avoid over-tightening screws in aluminum
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## Key Idea

A tapped hole allows a screw to thread directly into a material, making it useful for compact and lightweight FRC designs, but it must be used carefully to avoid stripping threads.

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