



# STEMFIE®

~ [stemfie.org/essentials](https://stemfie.org/essentials) ~

The STEMFIE Essentials collection features a variety of commonly used STEMFIE parts, conveniently organized into compact build plates designed to fit most 3D printer build volumes.

Begin your STEMFIE journey by importing the provided [STEMFIE.org\\_Essentials.3mf](#) file into your 3D printer's slicing software and start printing building blocks, fasteners, and tools. Each component is carefully oriented for efficient 3D printing without the need for support structures. Prepare a clean, flat build surface and calibrate your printer for optimal results.

We recommend using PLA or PETG for standard STEMFIE parts. Flexible components may require TPU filament. The following settings – usually default print mode – are ideal for printing STEMFIE parts:

- **Material:** PLA filament
- **Layer height:** 0.2 mm
- **Perimeters (shells):** 3
- **Top solid layers:** 4
- **Bottom solid layers:** 3
- **Infill:** 15%
- **Supports:** None required

STEMFIE® is a free, [open-source](#) educational toy that empowers creativity and hands-on learning. Enjoy 3D-printing a wide range of parts and bringing your project ideas to life! If you love what we're building, please consider supporting this project at [STEMFIE.org/support](https://STEMFIE.org/support).

— Paulo Kiefe

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This toy is unsuitable for children under three years old due to choking hazards!

