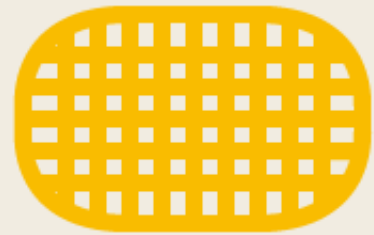




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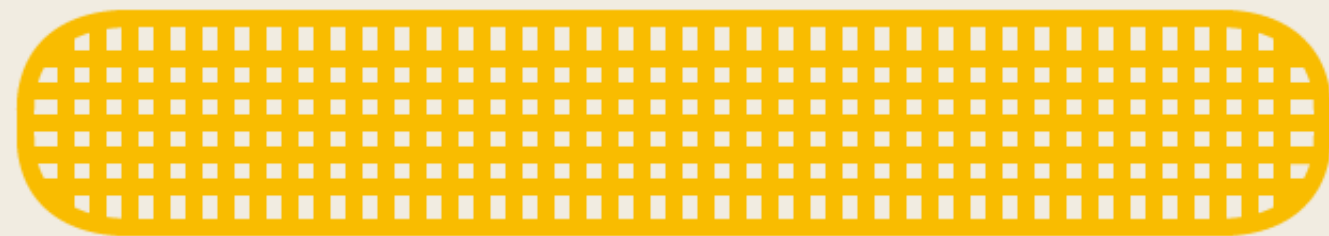
Additive Chef



Episode



Infill pattern & density



Chapter 1: Amuse bouche

Our mission is not only show you **WHAT** you can achieve with 3D printing technology, but **HOW** you can do this.

With The Additive Chef, you will learn:

- Common 3D printing **techniques**
- Practical **examples**
- How to **print successfully** by following **simple instructions**

By sharing **hands-on experiences** we want to help you level-up your skills and strategies to realize **first time right** prints for any application that you want.

That is the promise of *The Additive Chef*.

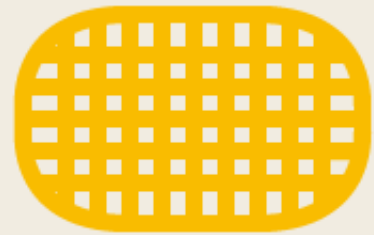
DO try this at home !



the



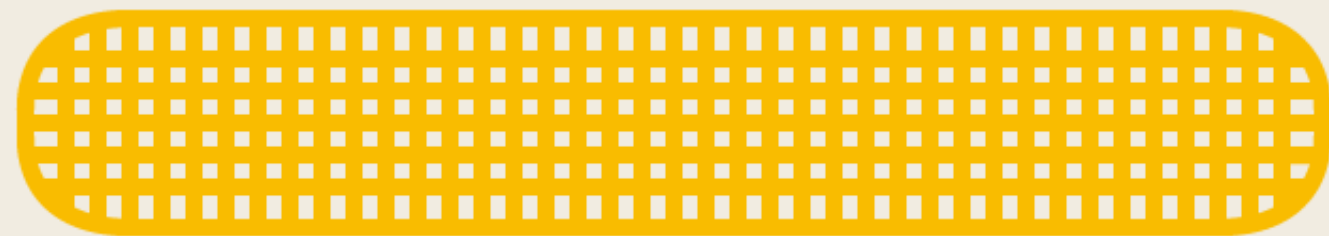
Additive Chef



Episode



Infill pattern & density



“It’s the inside that counts!”

Don't miss the **recipe**:

You will receive via email the Ultimaker Cura **project files** from all the example parts and the **infill settings** shared in this episode.

Chapter 2: Appetizer

A model consists of **outer shell, infill**
and, if necessary, **support structures**

Infill percentage:

- Between **15% and 40%**: nice balance between strength and printing time.
- Between **40% and 99%**: does not add much strength and increases printing time.

Choosing the right infill pattern can **reduce the amount of material up to 75%** while meeting the engineering requirements.

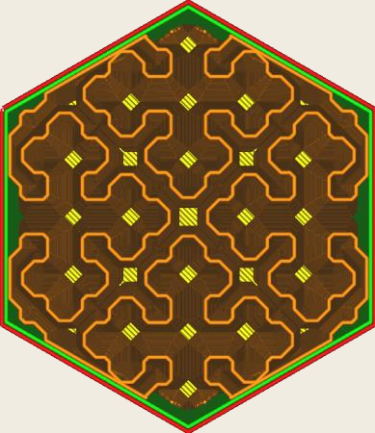
What to consider when choosing infill pattern:

- The required **strength**
- The **visual quality** of the top surface
- The direction and kind of **flexibility** necessary
- The **printability** of the pattern
- The printing **time**

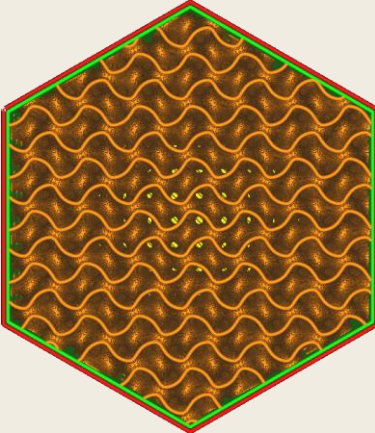
Infill structures

Recommend infill pattern for most use-cases

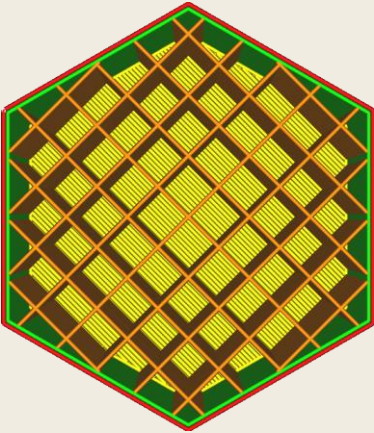
Cross 3D



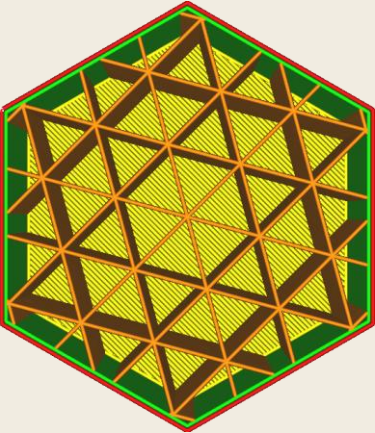
Gyroid



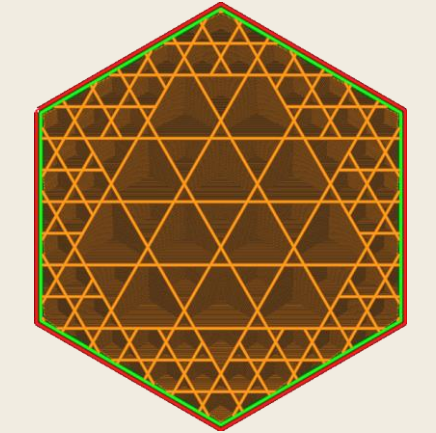
Grid



Triangles



Cubic subdivision



Flexible = 2 patterns

Strength = 3 patterns

Printability = 2 patterns

Load distribution = 2 patterns

Chapter 3: Dinner

Today's menu:

- 1) A part that prints as **fast** as possible
- 2) A part with the **right flexibility**
- 3) A part that is **strong** where it needs to be

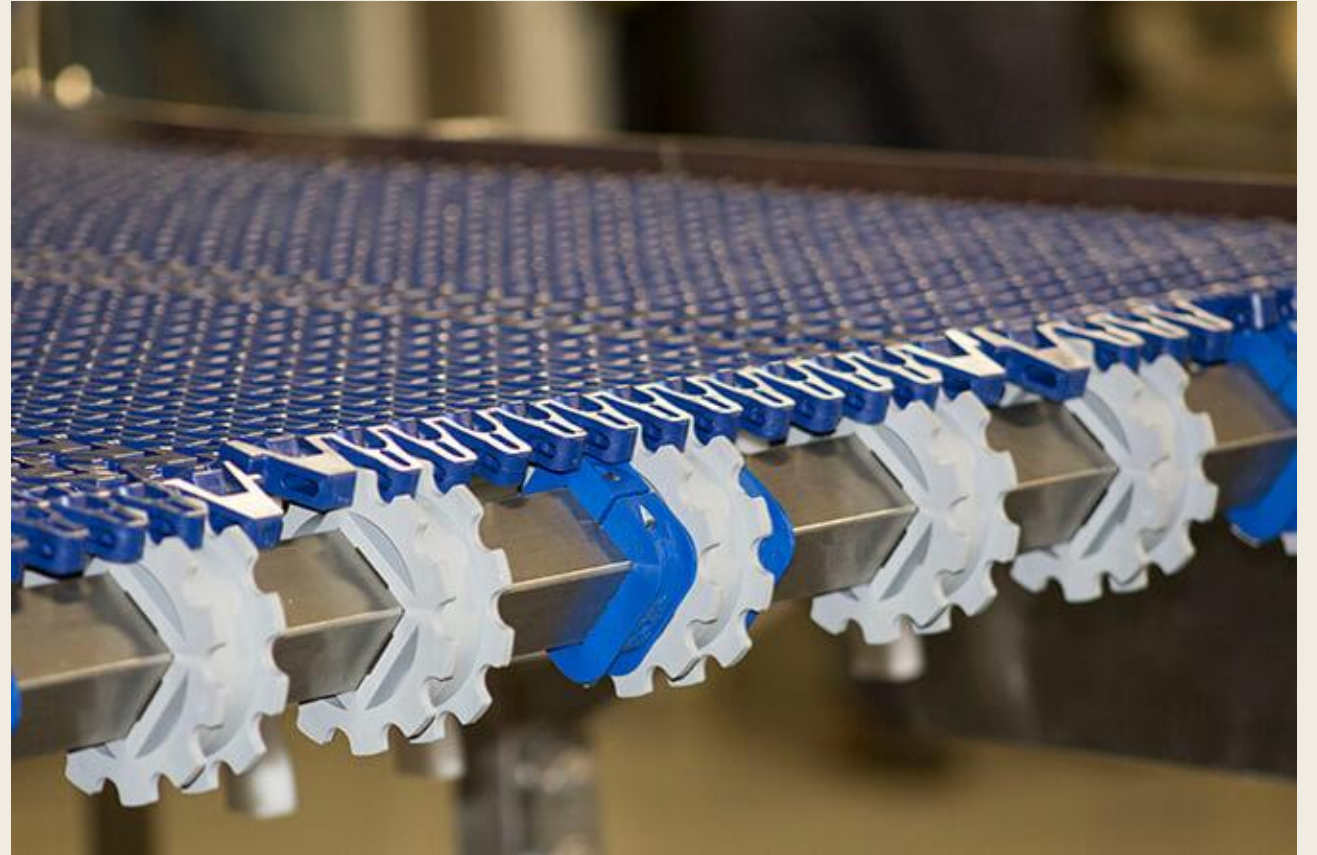
First course: Sidepod blower



Second course: Pack spinner bumper



Third course: Split socket gear wheel



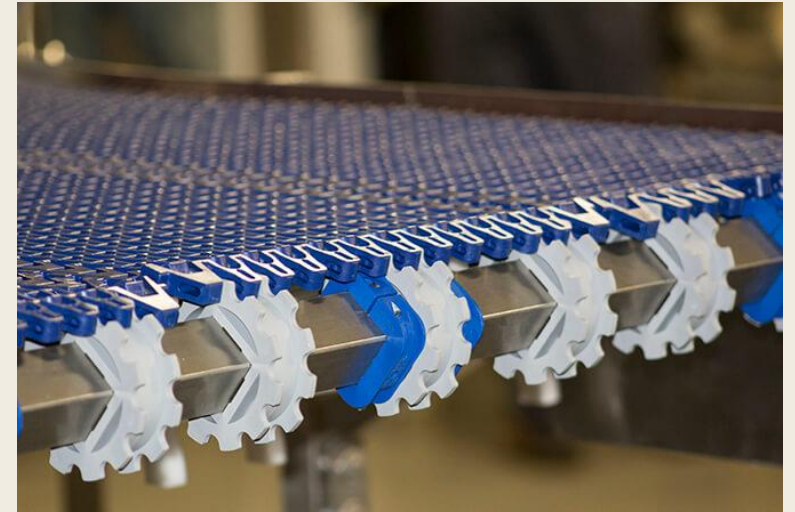
First course:



Second course:



Third course:



Sidepod blower

With the settings to prints it as **fast** as possible

Pack spinner bumper

With the settings that results with the **right flexibility**

Split socket gear wheel

With the settings to make it **strong** where it needs to be

Chapter 4: Dessert