SKOKIE PUBLIC LIBRARY

Learn About 3D Printing

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Upcoming Classes

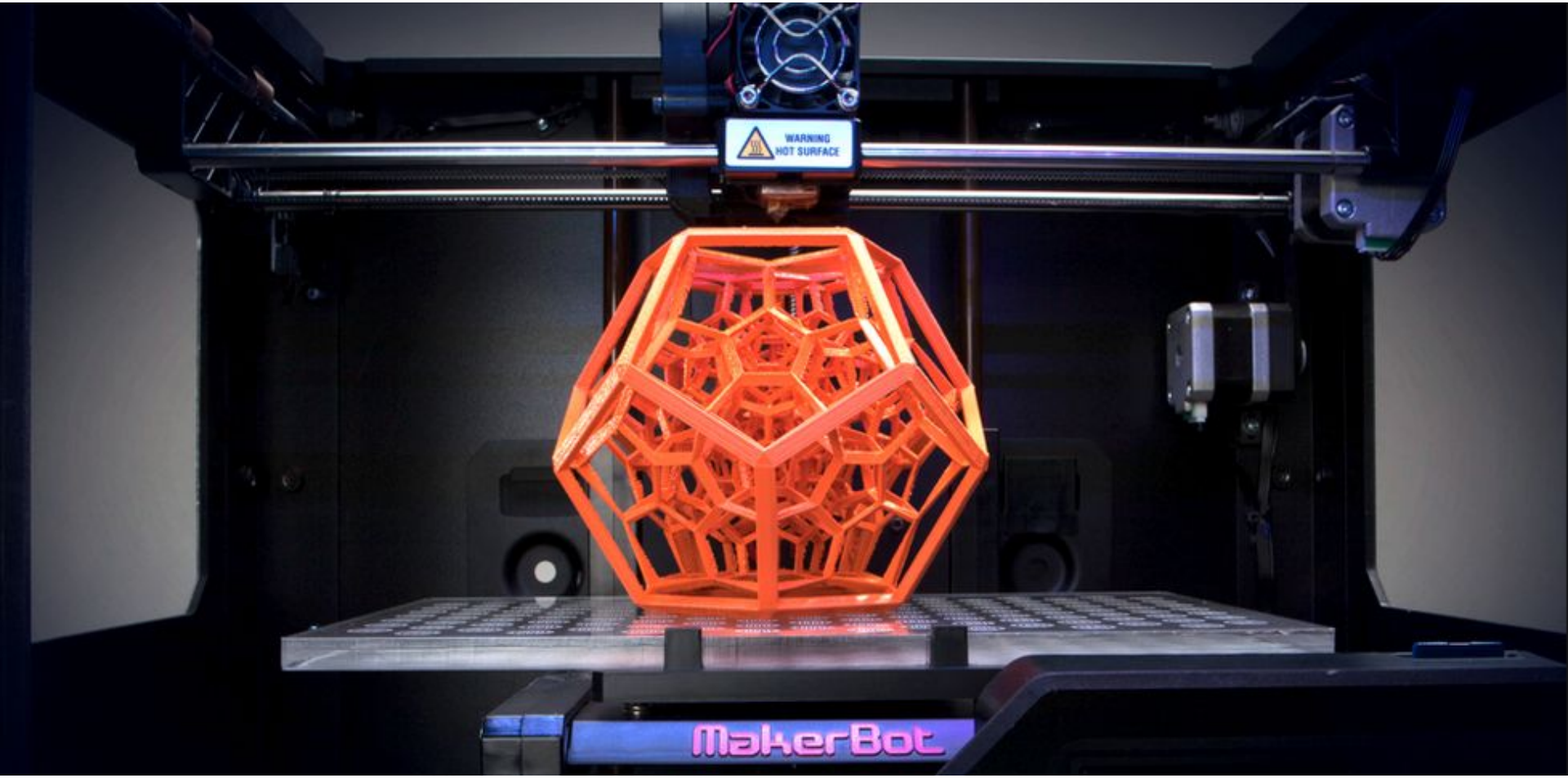
- Exploring Google Apps 3/31/18
  - 1:00 PM - 2:00 PM
  - Book Discussion Room
- Get Organized with Apps 4/5/17
  - 7:00 PM - 8:30 PM
  - Book Discussion Room

Classroom

- What is 3D Printing?
- Thingiverse - Download Files
- TinkerCad Introduction - Create Files
- 3D Print Demonstration

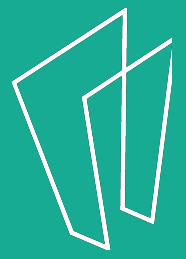
What is 3D Printing?

- There are lots of ways to make things
- 3D printing is when you use a computer to make a real world object


WARNING
HOT SURFACE
MakerBot

Printing with Plastic

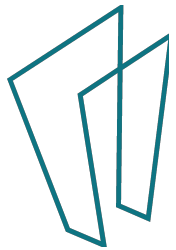
- 3D Printers use a special type of plastic
- This is called **filament**
- The plastic is melted to very hot temperatures
- When it cools down, it becomes solid again
- PLA vs ABS




PLA
VS
ABS

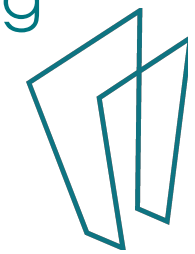
PLA vs ABS

	PLA	ABS
Printing Temperature	180-230°C	210-250°C
Print Bed Temperature	20-60°C	80-110°C
Print Bed	Optional	Mandatory
Enclosure	Optional	Recommended
Clogs/Jams Nozzle	Occasionally	Never
First Layer Adhesion	Minor problems	Minor problems
Fumes	Little to none	Bad and intense
Absorbs Moisture	Yes	Yes



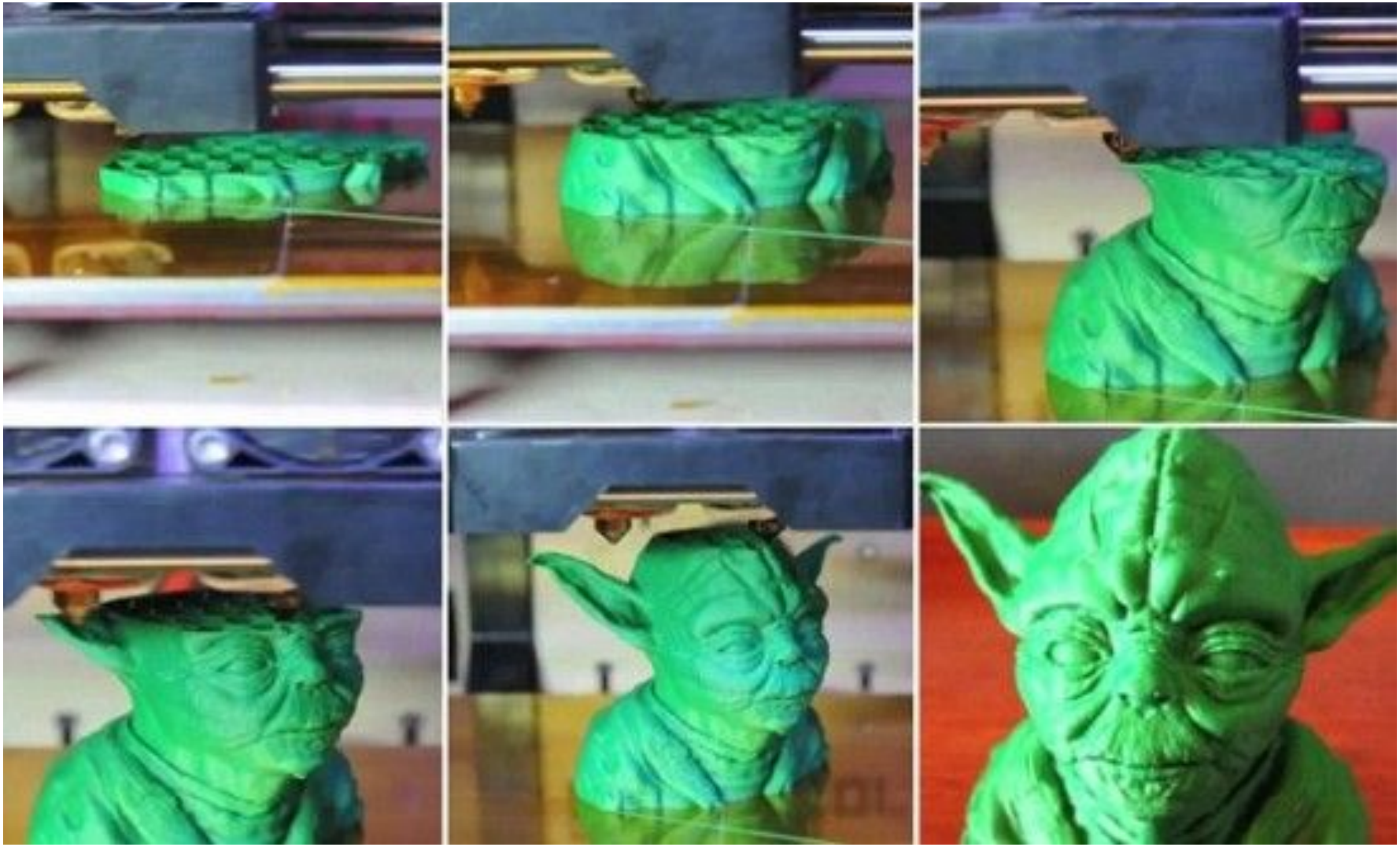
Where did 3D Printers come from?

- 3D Printing has been around since 1981
- Used in factories to make **prototypes**
- Allows companies to make sure their pieces and parts fit together before going into mass production



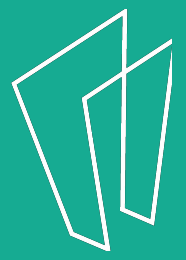
Additive Printing

- 3D printers draw very thin layers of melted filament with the nozzle
- A print job gets taller as layer after layer is stacked on top of each other
- One layer at a time



What can 3D Printers Make?

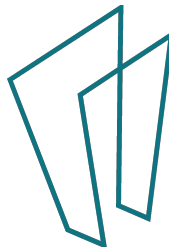
- Toys - Fidget spinners, figurines, toy cars
- Useful Parts - Nuts and bolts, light switch covers, tools
- Food
- Body parts
- Whatever you can think of!

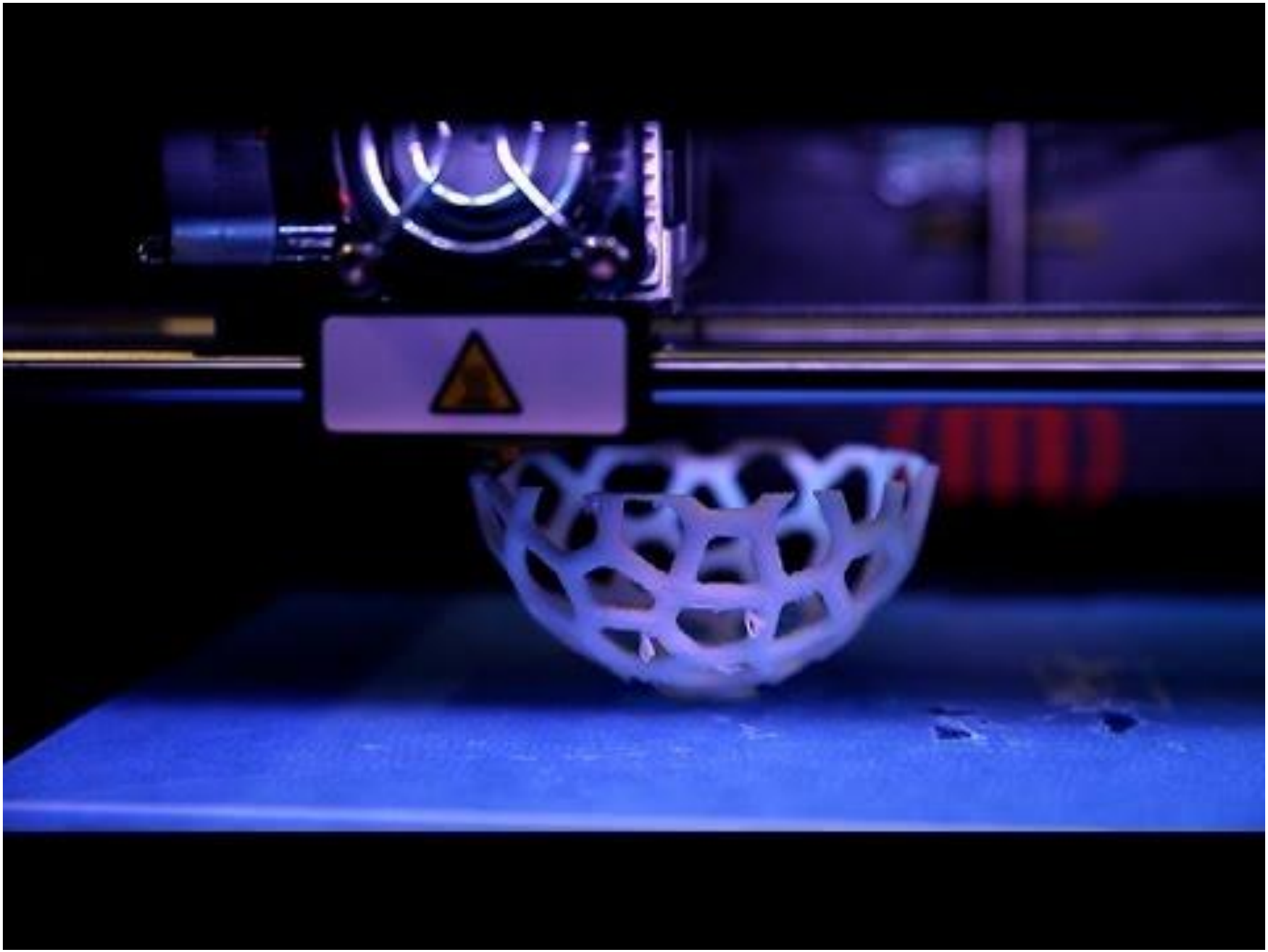



PancakeBot™

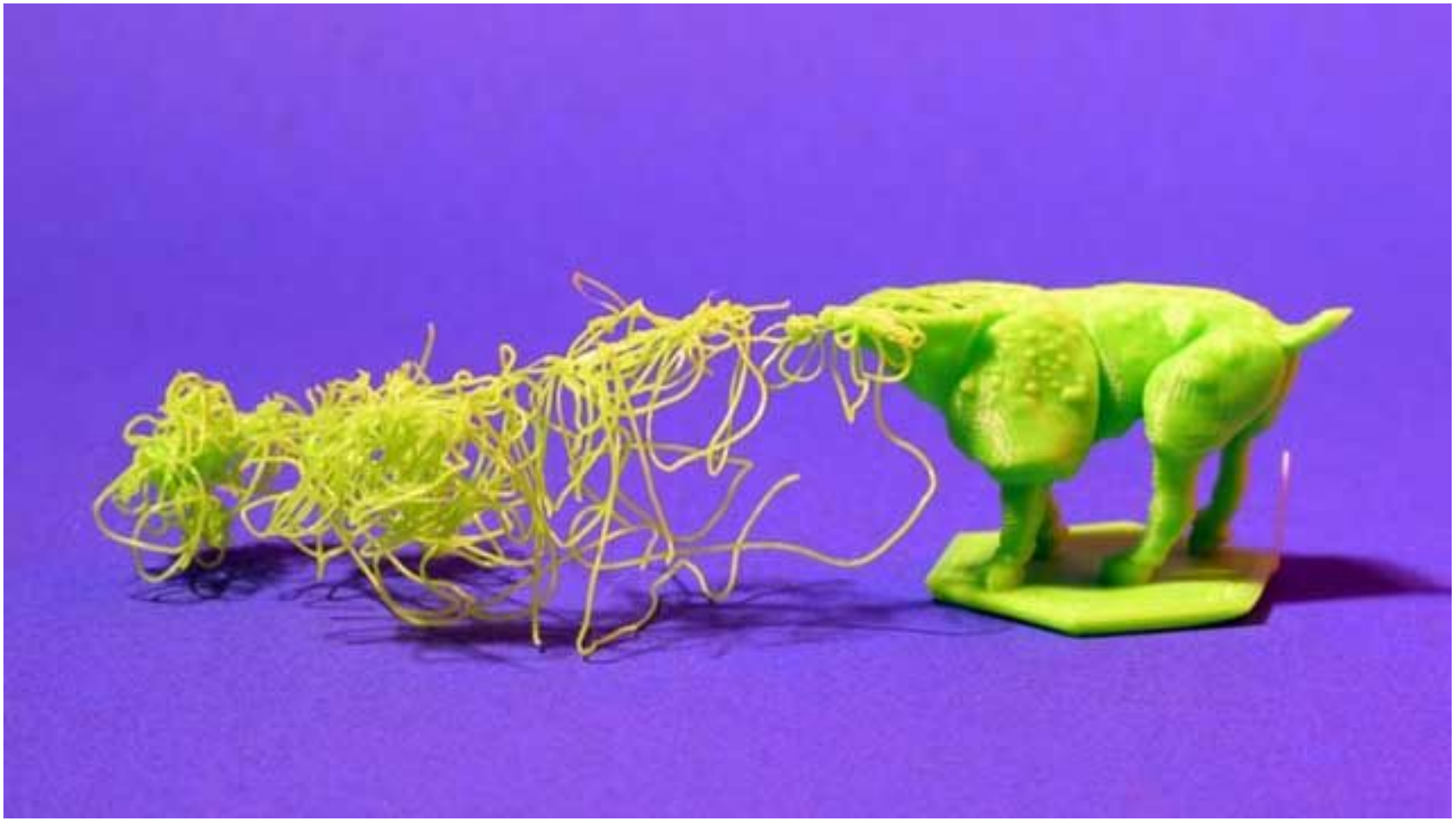
How do you make or find designs?

- 3D scanners
- 3D modeling software like TinkerCad
- Websites like Thingiverse.com





Failed Print Jobs

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Questions?

Thank You

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