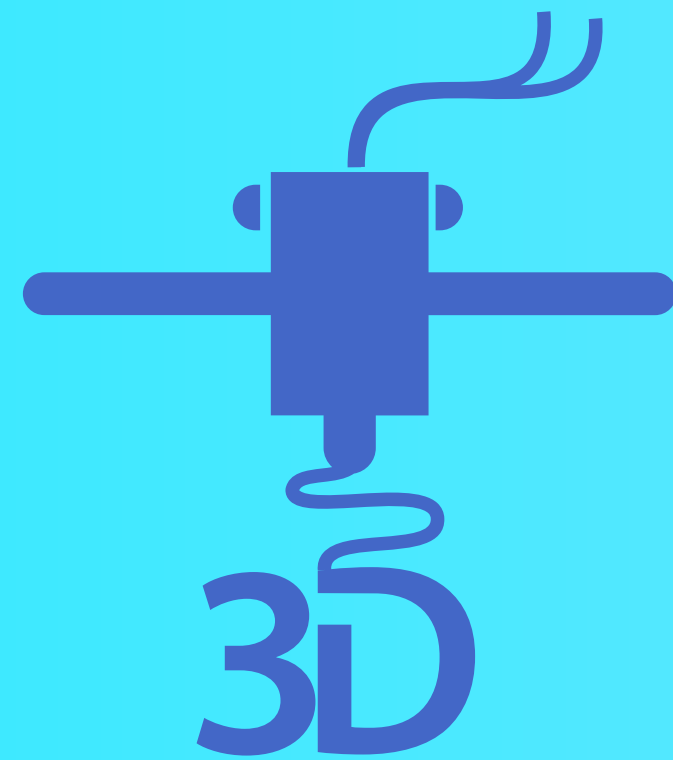


# 3D Printing Possibilities



<https://all3dp.com/>



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7. 3D Printed Puzzle Objects

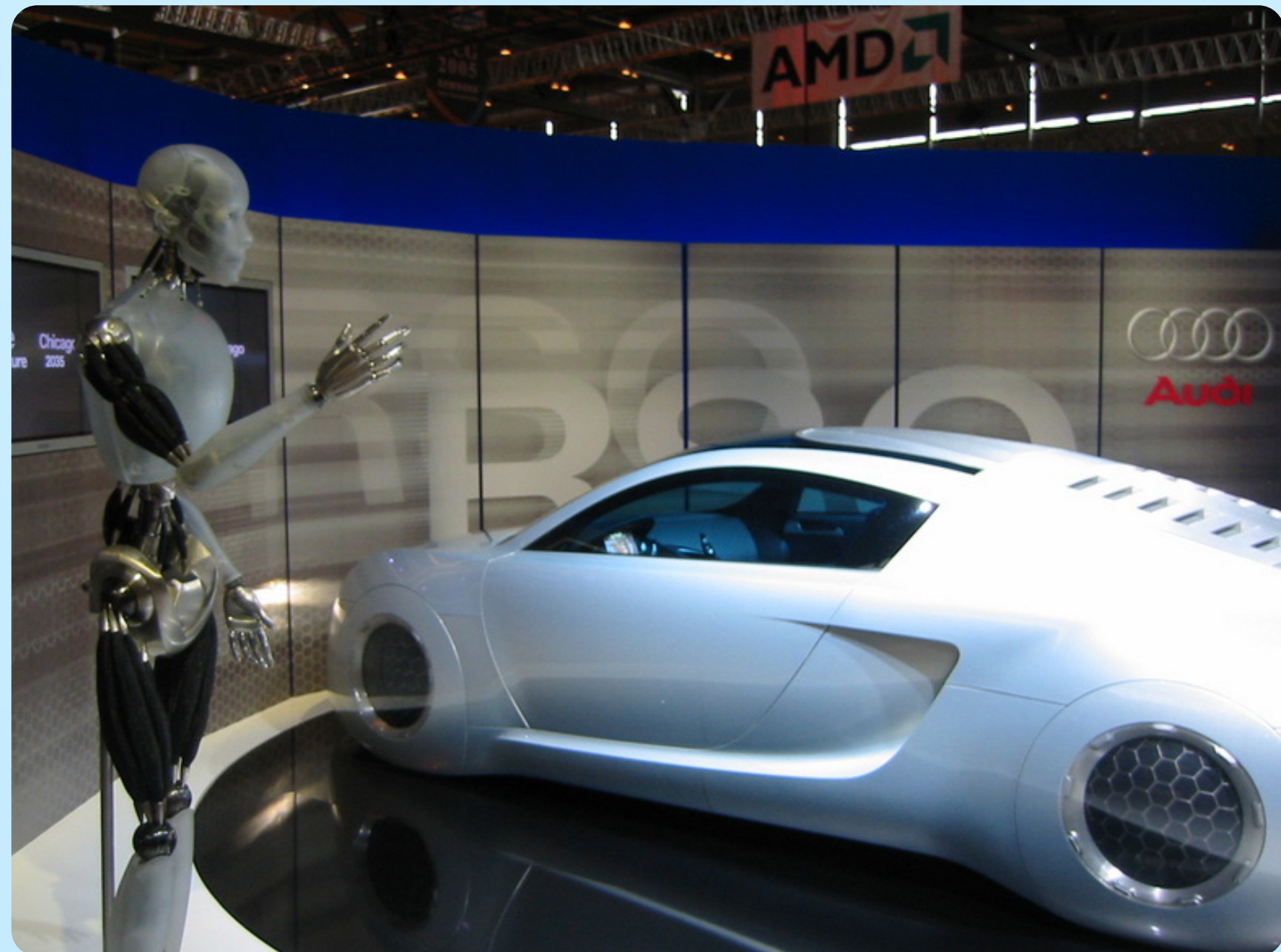


Photo by Eirik Newth / CC BY 2.0

# Cars Bodies

1

## 3D PRINTED CAR The LSEV



Source: Polymaker

**An electric car for \$7,500.**

# Cars Bodies

It takes three days to 3D print all the components for the LSEV, which is incredibly fast! The little car is meant to be a city cruiser at an affordable price and it represents the world's first mass-produced 3D printed car.

<https://all3dp.com/2/coolest-3d-printed-cars/>

## 3D PRINTED CAR Toyota uBox



Source: All3DP

# Cars Bodies

The uBox also features a flat floor, which allows the seats to be moved around in various ways, further highlighting the idea of a modular 3D printed car for young people.

**A custom car for Generation Z**

<https://all3dp.com/2/coolest-3d-printed-cars/>

## 3D PRINTED CAR Project M



Source: YouTube

**A new Project from a great mind**

<https://all3dp.com/2/coolest-3d-printed-cars/>

# Cars Bodies

3D printing enabled Shell to produce internal components in a rather short period of time, this also saved money. The company stated 3D printing enabled them to easily and cost-effectively produce complex plastic parts.

# Engines

## 2

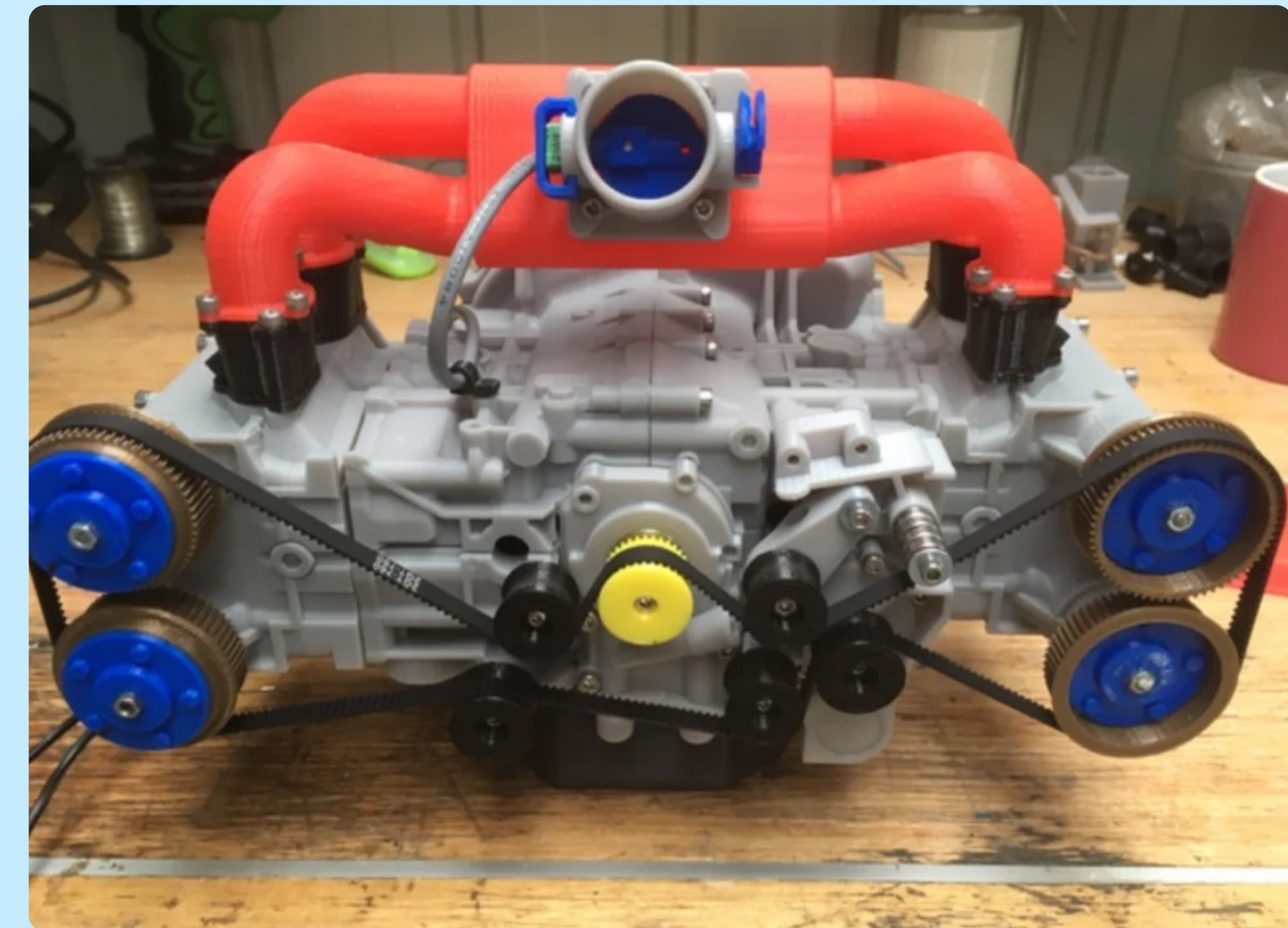
- Subaru
- Toyota
- Jet engines

## 3D Printed Car Engines

# 1. SUBARU

### 3D PRINTED ENGINES

## Eric Harrell's Subaru Engine



3D printed Subaru WRX EJ20 boxer engine. Source: Swanny/ Thingiverse

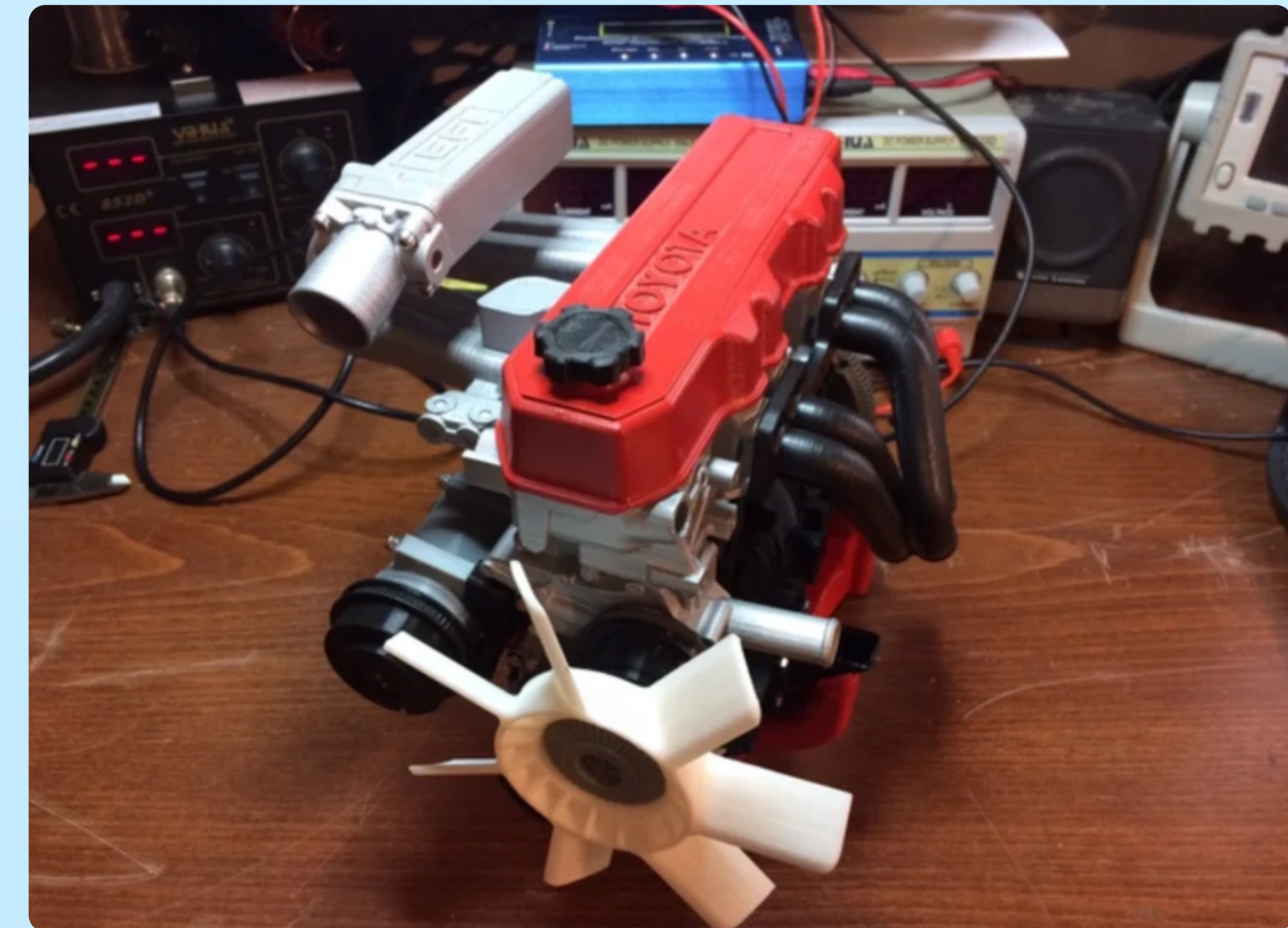
**The creator says the engine is entirely 3D printed, except for components like bearings. Additional parts combined represent about two to three percent of the total components that went into the 3D printed Subaru engine.**

## 3D Printed Car Engines

# 2. Toyota

3D PRINTED ENGINES

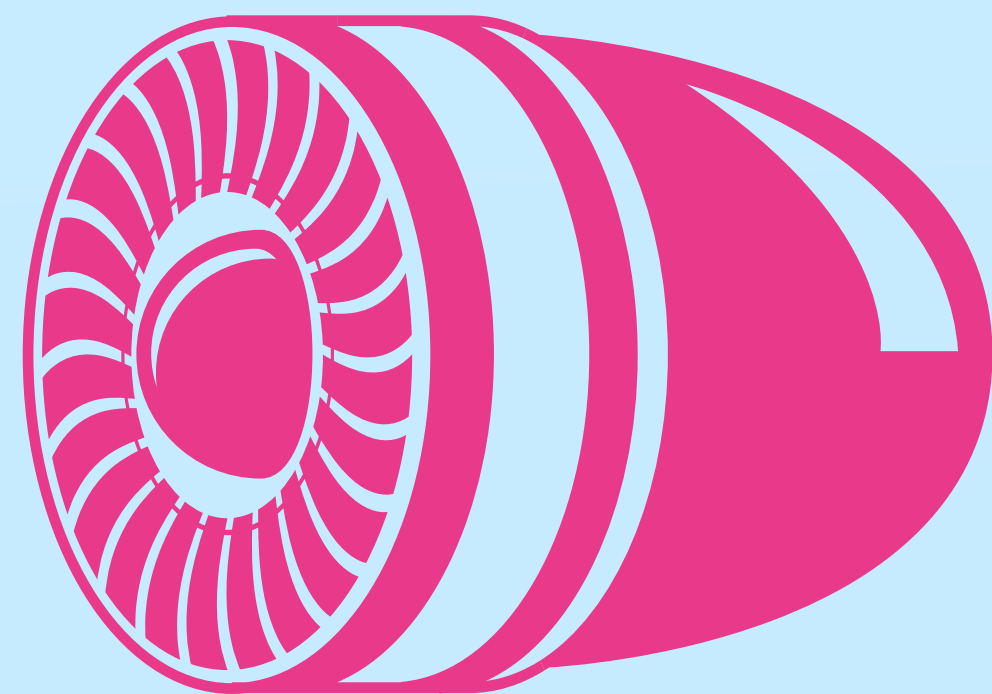
## Toyota's 4-Cylinder Engine



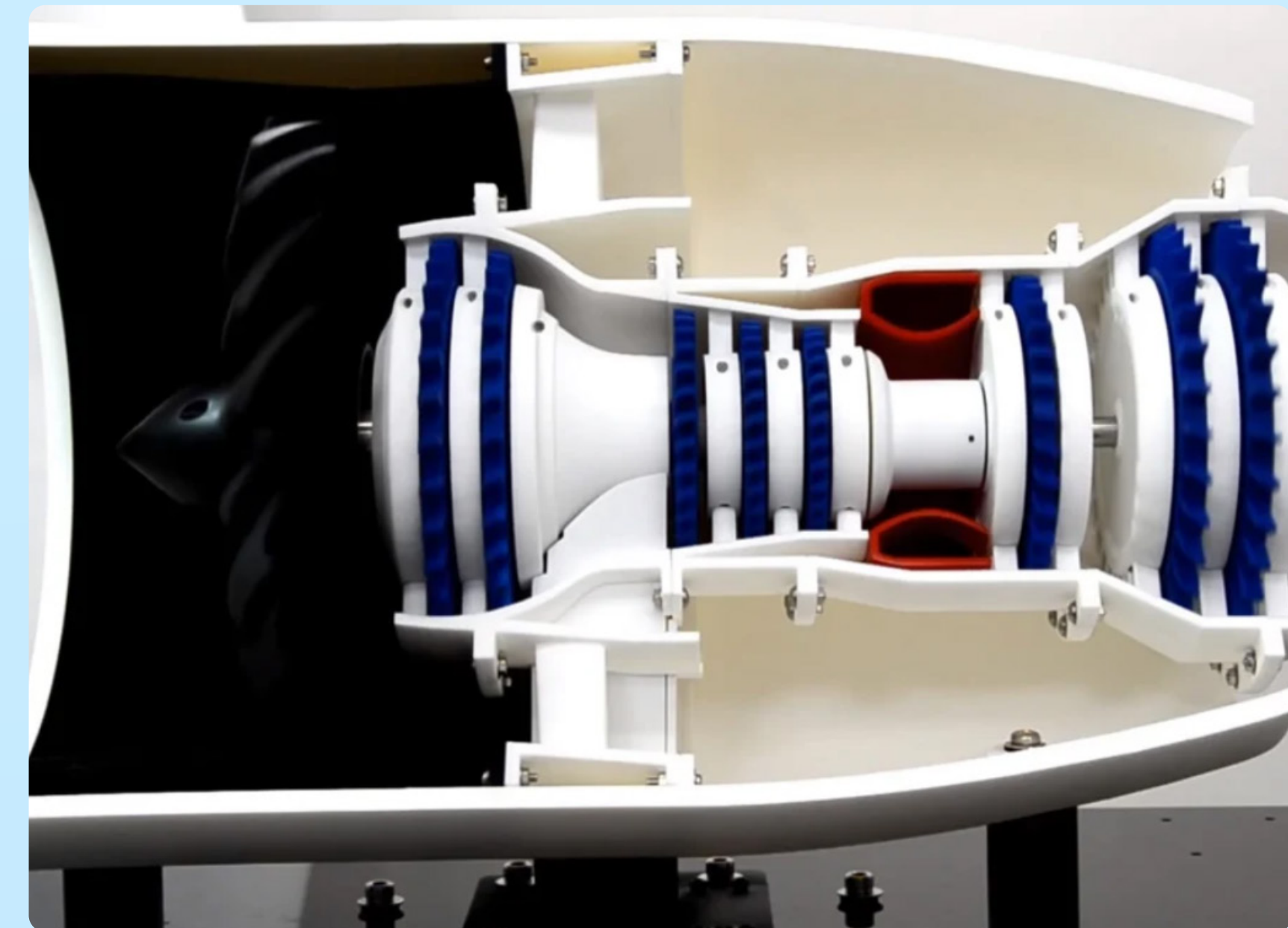
A fully functional 3D printed Toyota 4 cylinder 22RE engine.  
Source: ericthepoolboy / Thingiverse

**Chinese company Winbo Smart Tech 3D printed a four-cylinder Toyota engine in only three days using 18 Winbo Dragon FDM 3D printers to make the production faster.**

# 3D Printed Jet Engines



## 3D PRINTED ENGINES Jet Engines



A 3D printed jet engine. Source: 3DP id.arts / YouTube

**This 3D printed jet engines are a working prototype for educational purposes. They're impressive examples of the power of additive manufacturing and a taste of the future to come.**

# 3D Printed Homes

## 3



THE FUTURE OF 3D PRINTING

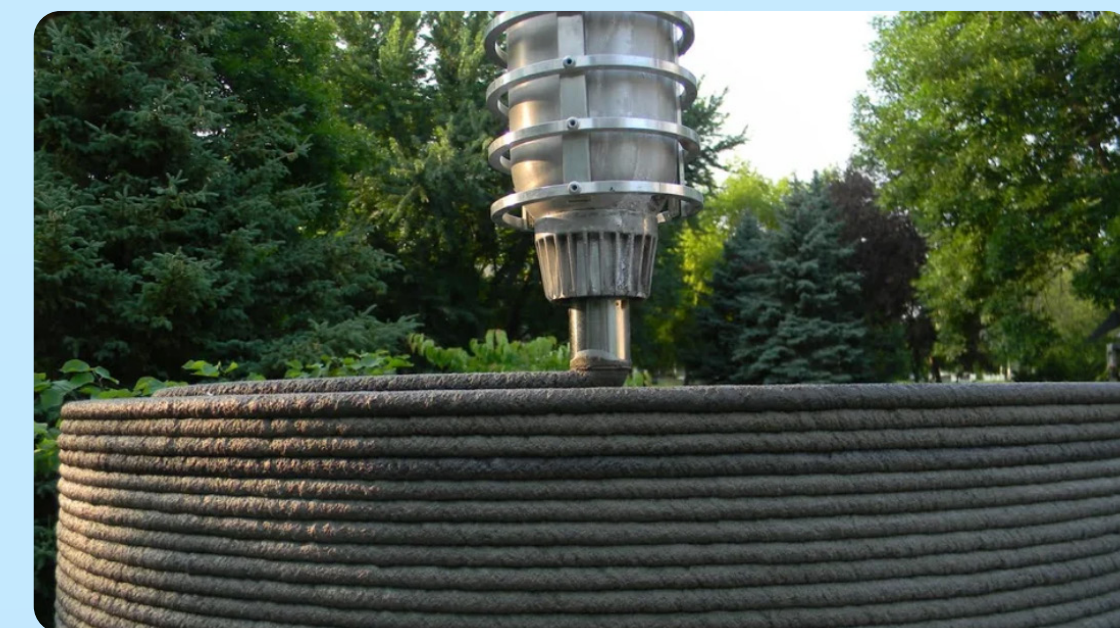
## Case Studies: Architecture and Construction



A 3D printed house. Source: Singularity Hub

## Complete Structure in 24 Hours

- Entire homes, livable and human-sized, are already being 3D printed.
- Here, the key technology is concrete 3D printing, a process in which large nozzles squirt out your future home.



## 3D PRINTED HOUSE COMPANIES

### WASP



Gaia, 3D printed with naturally-sourced materials. (Source: 3dwasp.com)

# 3D Printing Construction Companies in 2020

- **Headquarters: Italy.**
- **Type of structures: Low-rise buildings, but the company is working on expanding its portfolio.**
- **Region of operation: Mainly Italy.**
- **Price for a house: Material costs of around \$980 for the Gaia), excluding roofing and glasswork.**
- **Printer: Big Delta, Crane Wasp.**

3D PRINTED HOMES

## WinSun



WinSun was able to print 10 houses like this in a single day Source: Popular Mechanics

# 3D Printing Construction Companies in 2020

- Headquarters: China.
- Type of structures: Low- and high-rise buildings.
- Region of operation: Global.
- Price for a house: Around \$4,800.
- Printer: 492-ft-long 3D printer.

3D PRINTED HOMES

## Build Your Own House



Through FDM construction printers companies are able to construct full homes Source: Sunconomy

# House Layout Design & Print

- Use your 3D SW to design your house layout.
- Take your design to a house printer to make your own place to live.

# 3D Printed Medical

## ARTIFICIAL ORGANS

# 4

### BIOPRINTING

## Applications

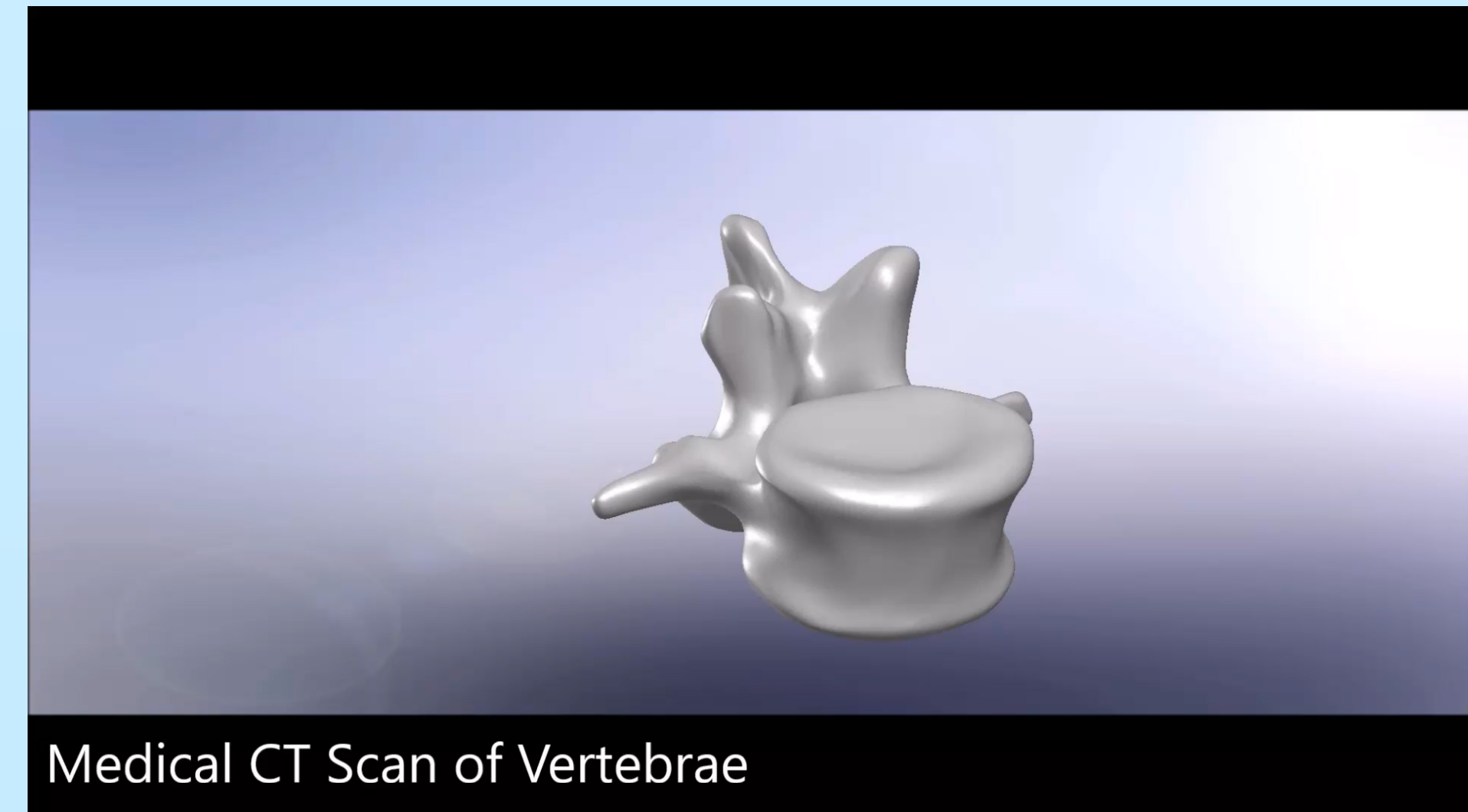


A model of a heart. Source: medicaldevice-network.com

- 1. Artificial Organs:** are one of the greatest drivers of the technology due to the high rise of vital organ failure.
- 2. Pharmaceutical:** as the development of tissues for testing , when 3D printed, is a more cost-effective and ethical option.
- 3. Cosmetic Surgery:** particularly plastic surgery and skin grafting, also benefits from the technology.
- 4. Bone Tissue Regeneration:** as well as prosthetics and dental applications.

# 3D Printed Medical

## **Bone Tissue Regeneration**



Medical CT Scan of Vertebrae

3D PRINTING IN MEDICINE & MEDICAL 3D PRINTING

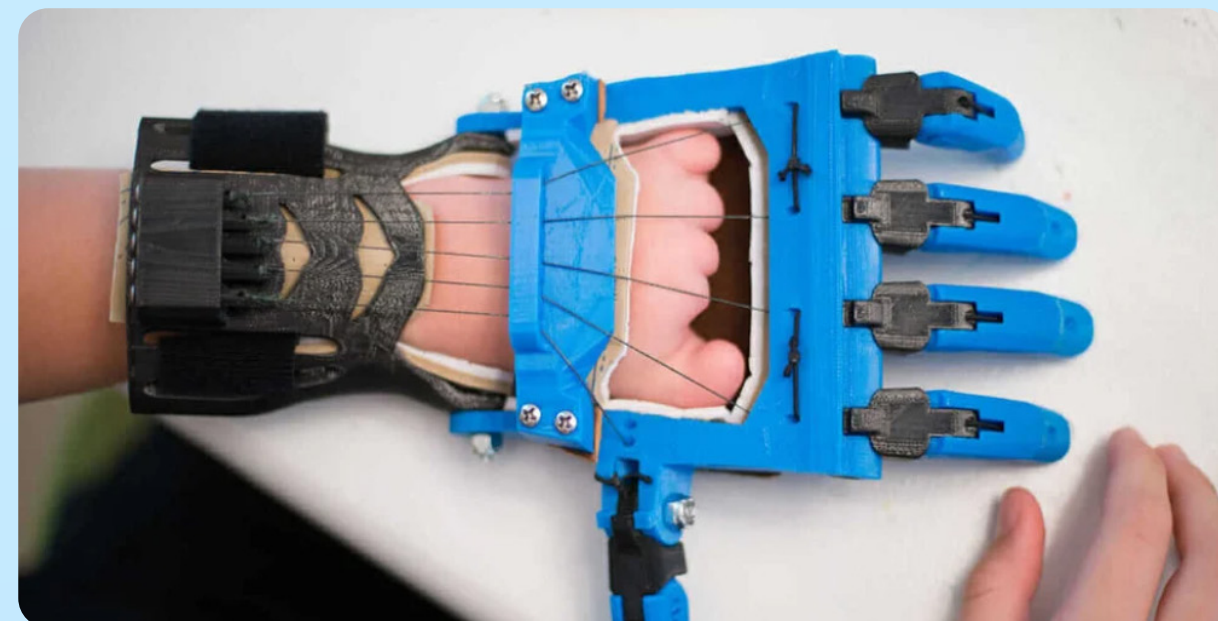
## New Age Healing



Model of a skull with a 3D printed plate. Source: Sketchucation.com

THE FUTURE OF 3D PRINTING

## Case Study: Medicine



An advanced prosthetic hand. Source: Autodesk



3D PRINTING IN MEDICINE & MEDICAL 3D PRINTING

## Dental Applications



3D printed teeth in a reference model. Source: Formlabs

3D PRINTING IN MEDICINE & MEDICAL 3D PRINTING

## Medication Dosage and Pharmacology



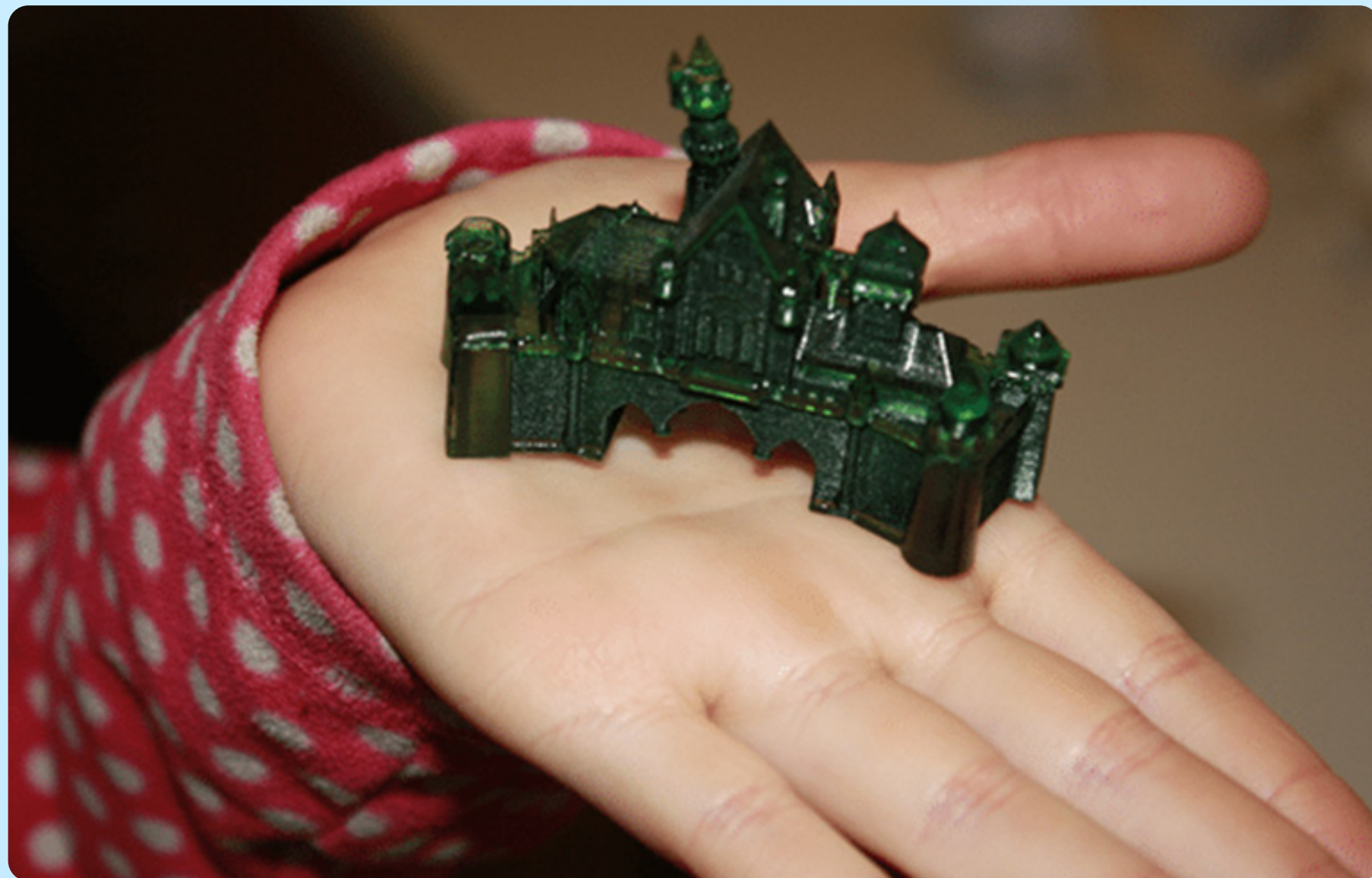
Robot arm hold a 3D printed drug. Source: News-Medical.net

3D PRINTING IN MEDICINE & MEDICAL 3D PRINTING

## 3D Printing of Tissues and Organs



Nose and ear 3D printed from live tissue. Source: The future of Things



[Photo by Eirik Newth / CC BY 2.0](#)

5

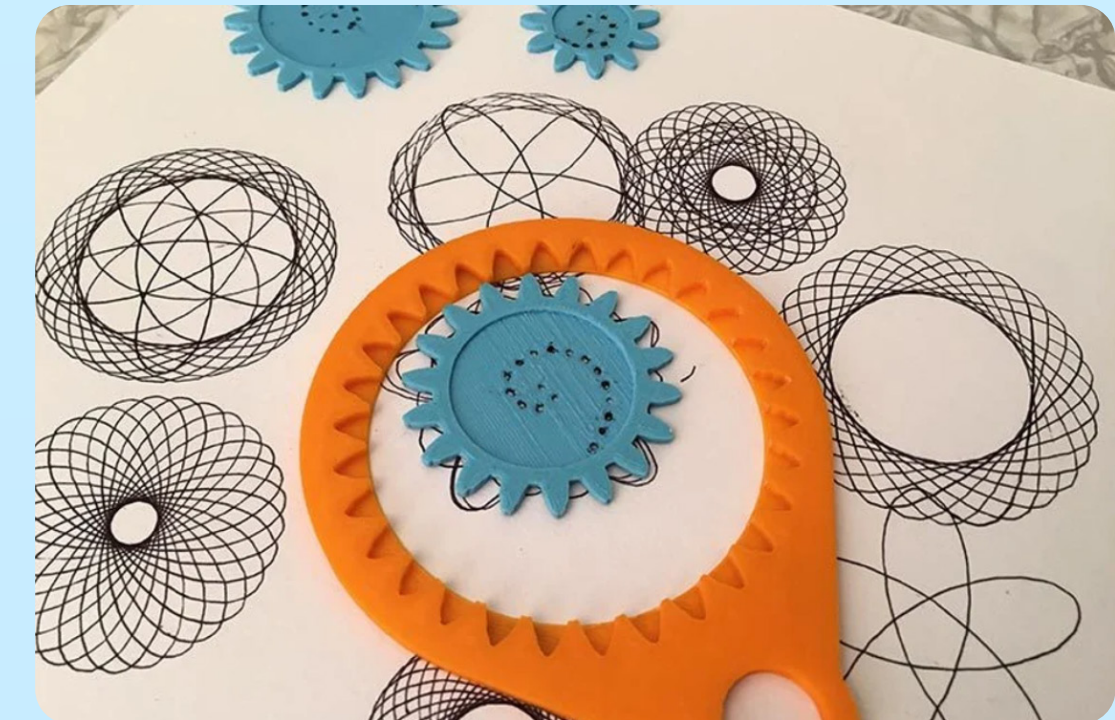
## 9 Easy & Fun Things to 3D Print

EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)  
**Keychain Smartphone Stand**



# Easy & Fun Things to 3D Print

EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)  
**Spirograph Set**



EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)  
**Shark Comb**



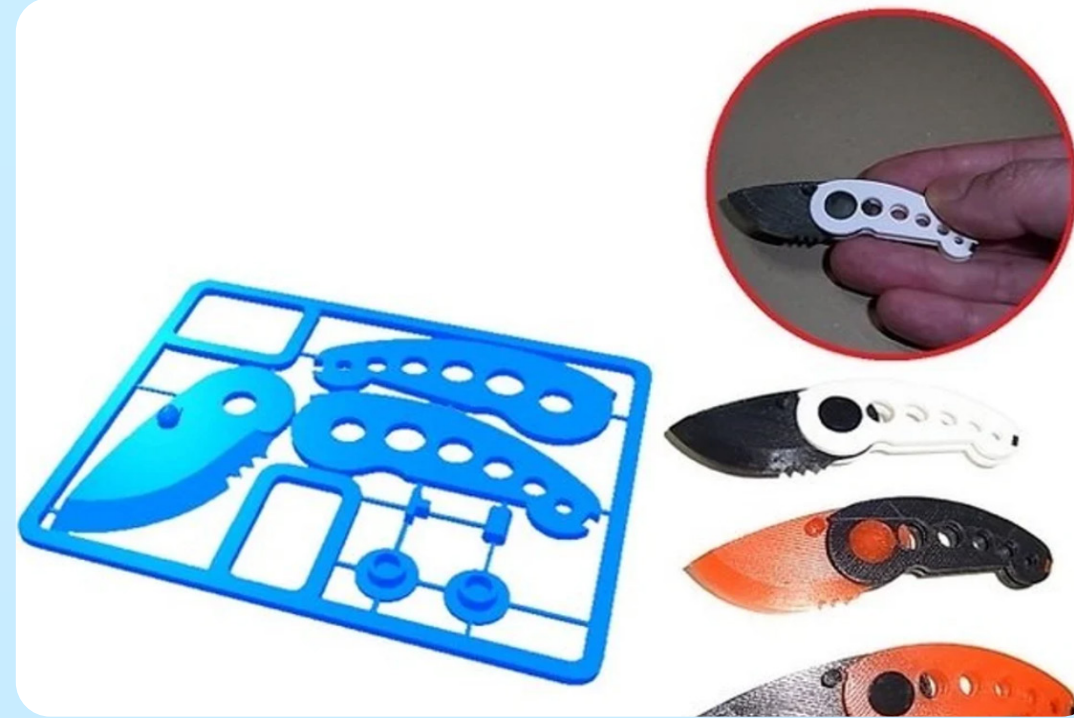
EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)

### Book Owls



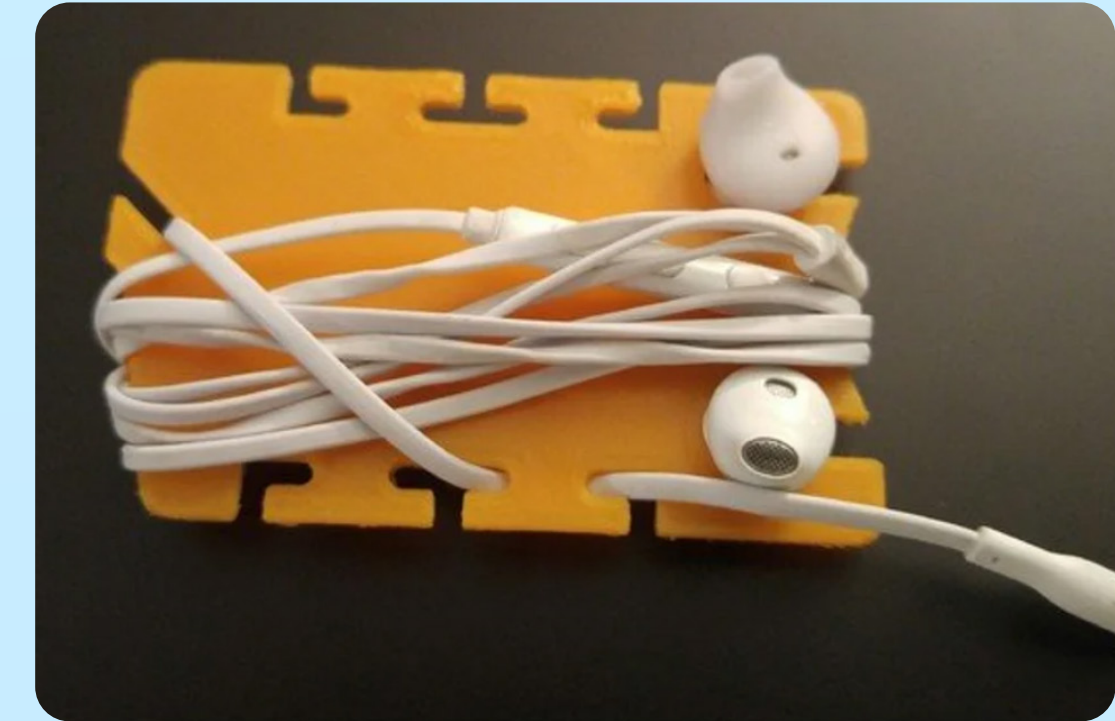
EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)

### Mini Folding Knife



EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)

### Fast Release Earbud Wrap Designer v2.4



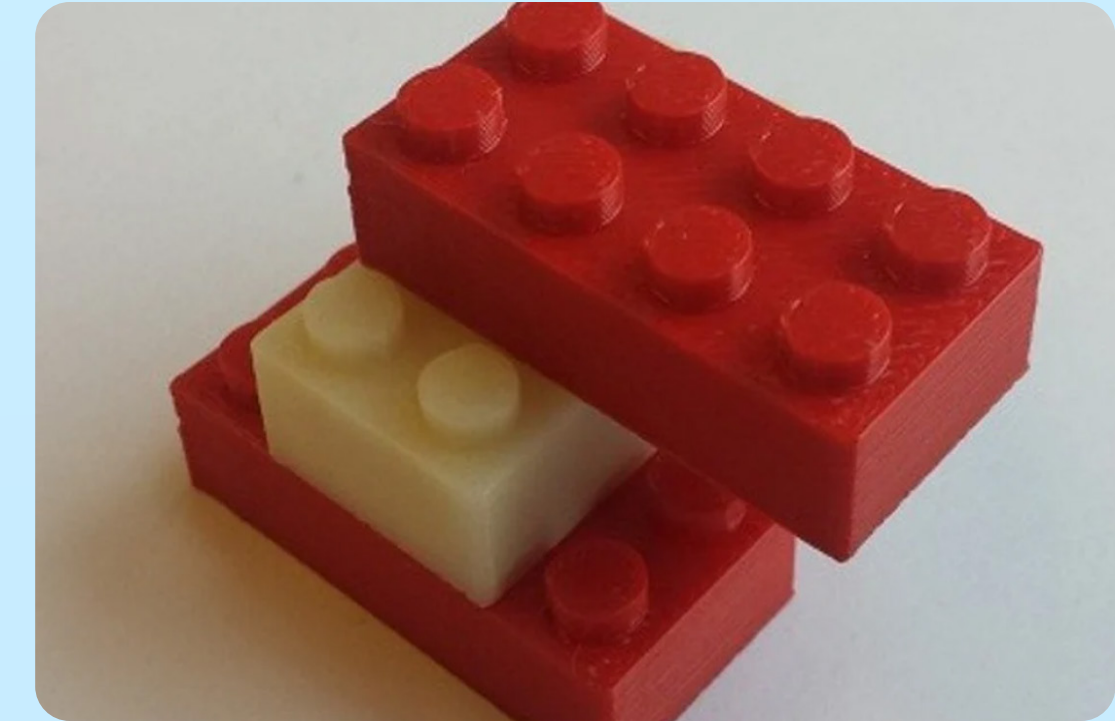
Easy & Fun  
Things to  
3D Print

EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)  
**IPad and Tablet-Table Stand**



## Easy & Fun Things to 3D Print

EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)  
**Classic LEGO Brick**



EASY AND FUN THINGS TO 3D PRINT IN AN HOUR (OR LESS)  
**Cable Holder**



# 6

## Functional & Cool Things to Print

<https://all3dp.com/1/useful-cool-things-3d-print-ideas-3d-printer-projects-stuff/?s=car%20bodies>

COOL THINGS TO 3D PRINT  
**Hose Connector Customizer**



Hose connector Customizer (Source:Paul\_Tibble,via Thingiverse)

COOL THINGS TO 3D PRINT  
**Door Hold**



COOL THINGS TO 3D PRINT  
**Pen and Pencil Holder**

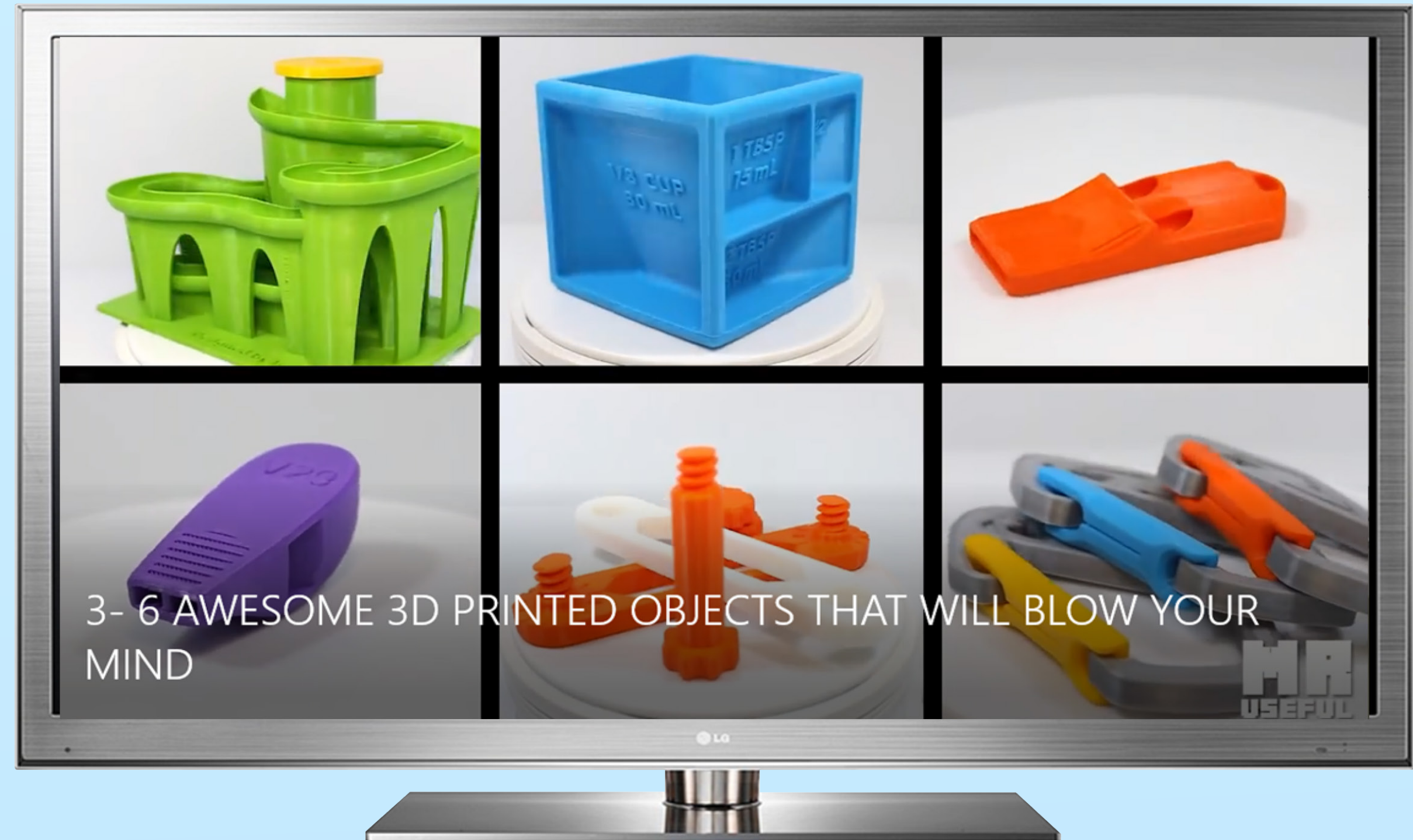


COOL THINGS TO 3D PRINT  
**Credit Card Cutlery**



# 7

## Creative and Useful Ideas to Print



8

# Puzzling Animals and Objects to Print



3D Printed Puzzle  
Dinosaur



3D Printed Puzzle  
Cube

