Rens Wouterse PD1LAW

3D PRINTING

Wat is een 3D printer?

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met een groot verschil t.o.v. "traditionele CNC machines"

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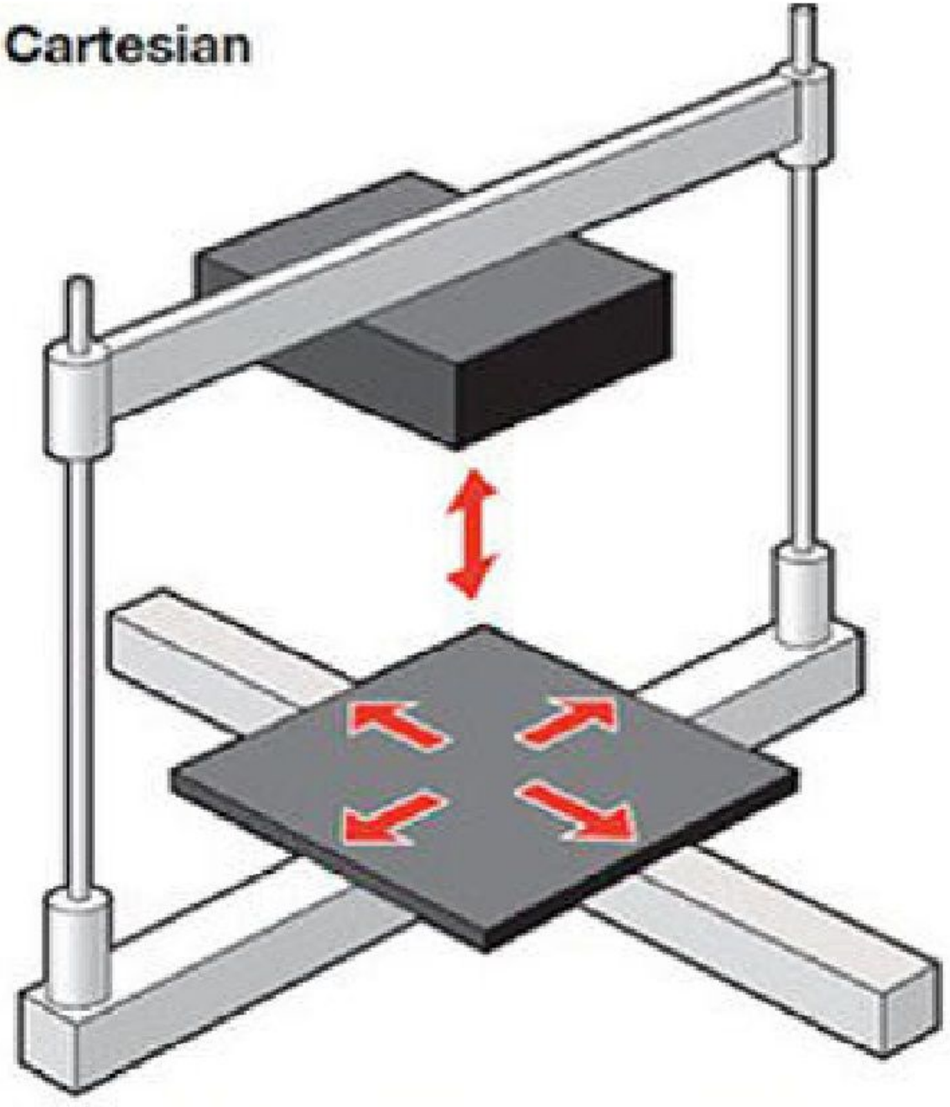
met een groot verschil t.o.v. "traditionele CNC machines"

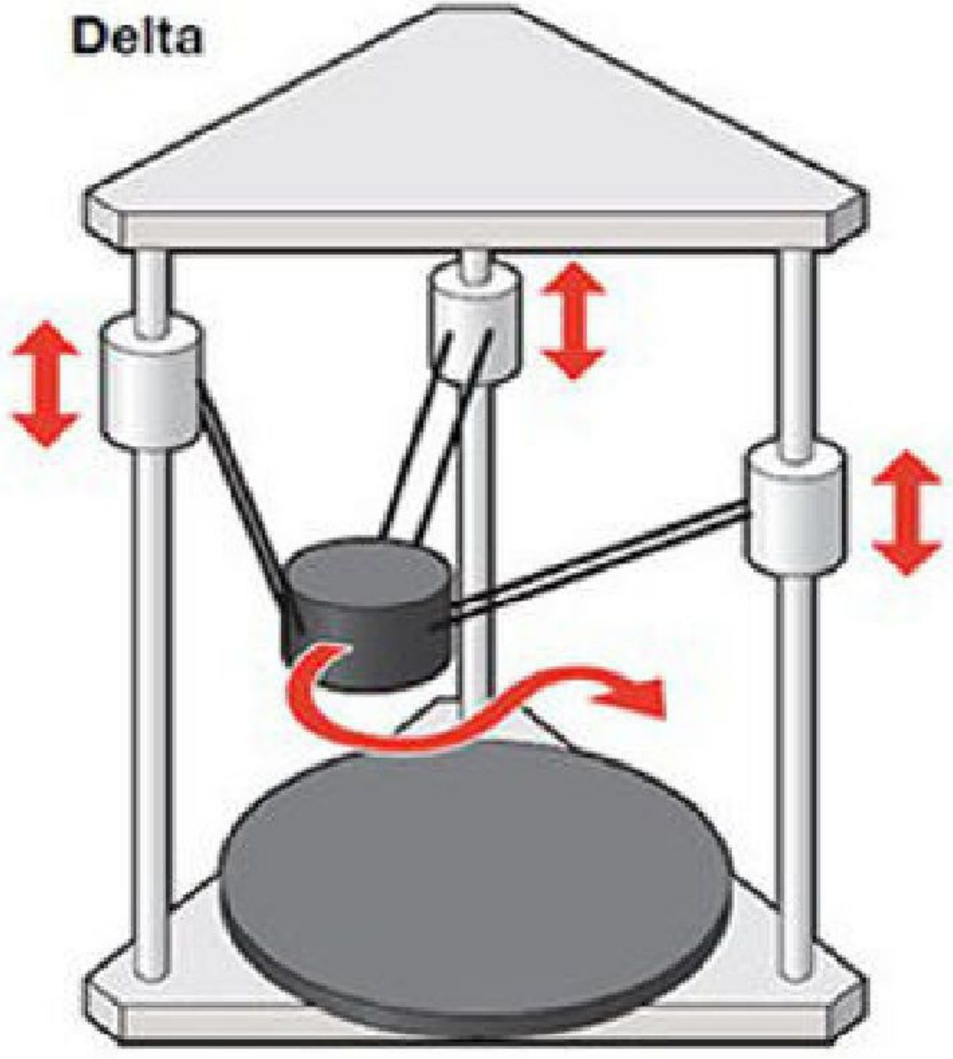
Een 3D printer voegt materiaal toe

Cartesian



Each element moves only in one direction.

Delta

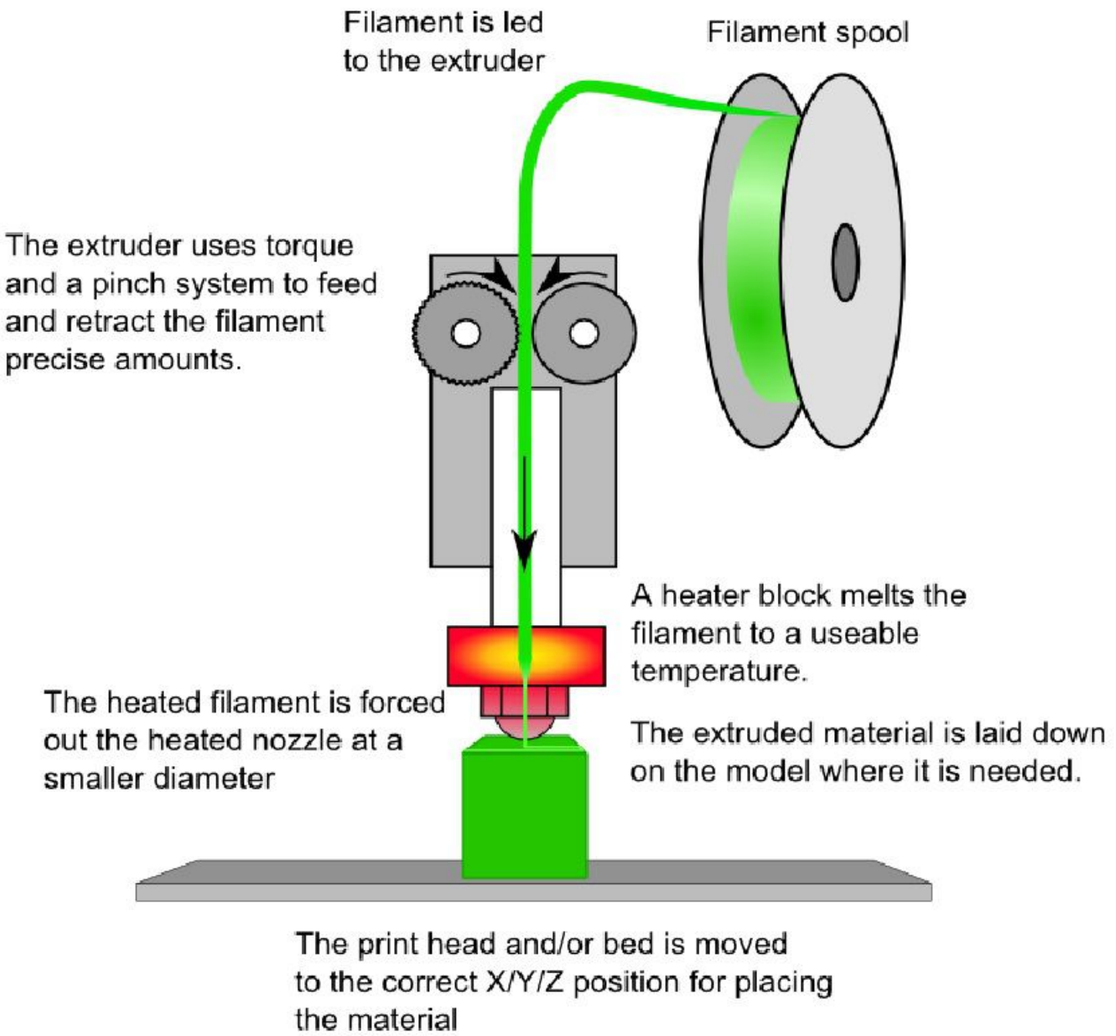


Printer head can move in any direction quickly.

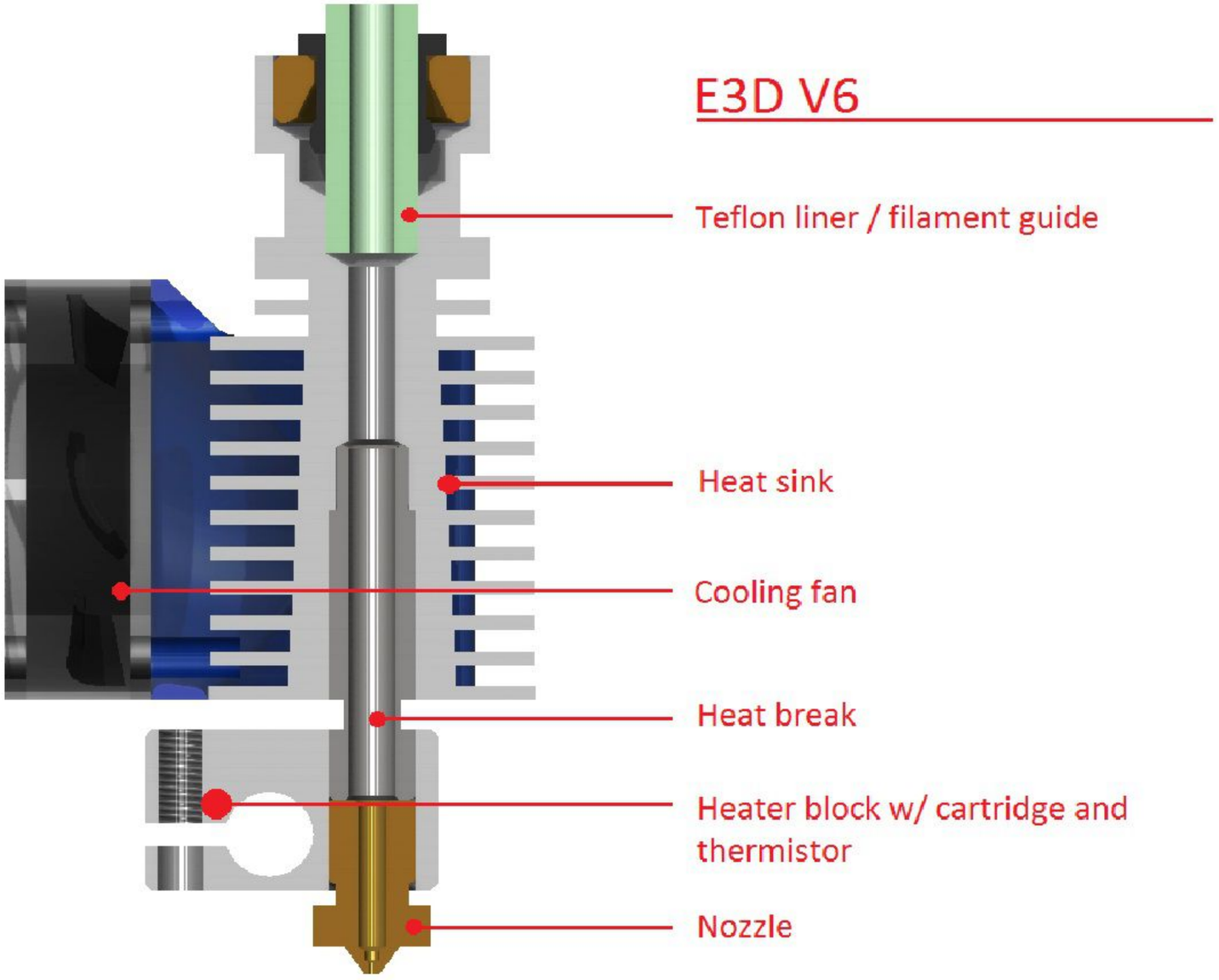
Anet A6 - Prusa i3 pro

1. Verschillende 3D print filamenten worden ondersteund: PLA, ABS, Hout-Polymeer, Nylon, flexibele PLA and PVA
2. 220x220x250mm printvolume;
3. 0.05mm printnauwkeuringheid;
4. 8-mm-dik gelasercut acryl frame voor stevigheid en duurzaamheid;
5. Roestvrijstalen staven, tandwielen, kogellagers en connectoren voor een vlottere beweging;
6. Alle metalen riemschijven voor verbeterde functionaliteit en performantie;
7. Super-platte aluminium legering printoppervlak voor betere hechting;
8. Quick-release tandwielen voor snellere en vlottere filament voeding;
9. Filament diameter: 1.75mm;
10. Spuitmeter diameter: 0.4mm.

€ 144,95


Filament is led to the extruder
Filament spool
The extruder uses torque and a pinch system to feed and retract the filament precise amounts.
A heater block melts the filament to a useable temperature.
The heated filament is forced out the heated nozzle at a smaller diameter
The extruded material is laid down on the model where it is needed.
The print head and/or bed is moved to the correct X/Y/Z position for placing the material

E3D V6


Teflon liner / filament guide
Heat sink
Cooling fan
Heat break
Heater block w/ cartridge and thermistor
Nozzle

Software

1. Ontwerp (stereolithography file (.stl))
    a. Eigen ontwerp (via CAD programma, FreeCAD, AutoCAD, Solidworks etc.)
    b. Ontwerp via bijv. www.thingiverse.com

2. Slicer software (Ultimaker Cura) voor het aanmaken van een Gcode file

3. Gcode file naar de 3D printer

FreeCAD

File Edit View Tools Macro Windows Help

Start

Combo View

Model Tasks

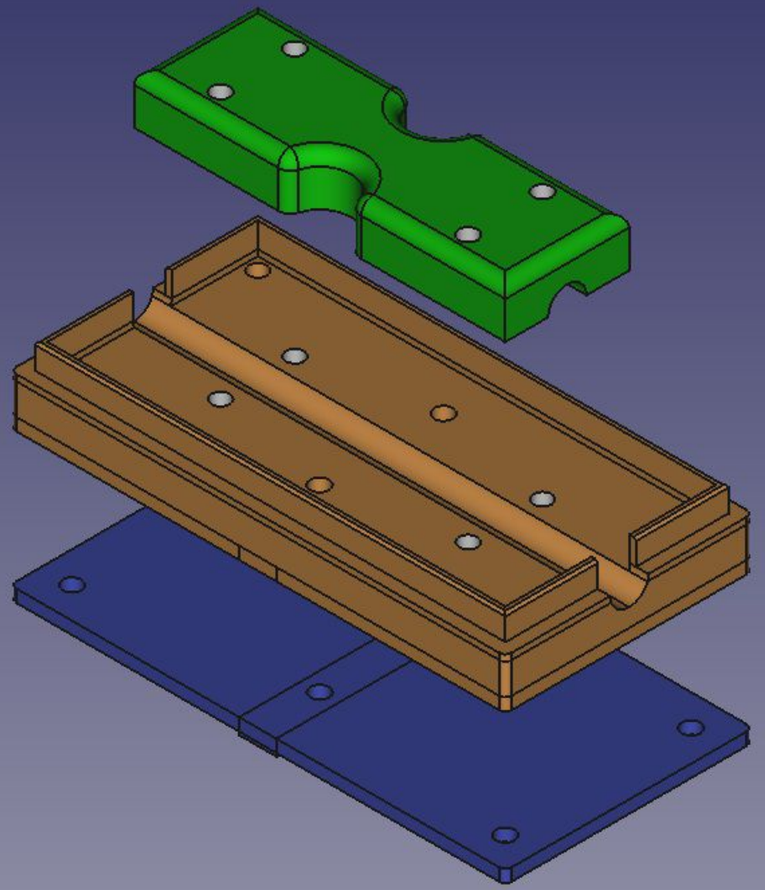
Labels & Attributes

Application

- Yagi
  - Bodem
  - Cylinder008
  - Cut009
  - **Cut013**

Property Value

View Data



Yagi : 1*

NLD 12:08 21-10-2019

Ultimaker Cura

File Edit View Settings Extensions Preferences Help

cura.

PREPARE | PREVIEW | MONITOR

Marketplace | Sign in

Anycubic Kossel Plus

Generic PETG

Fine 0.1mm | 100% | Off | Off

Print settings

Profile: Fine - 0.1mm

search settings

Quality

Layer Height	0.1	mm
Initial Layer Height	0.2	mm

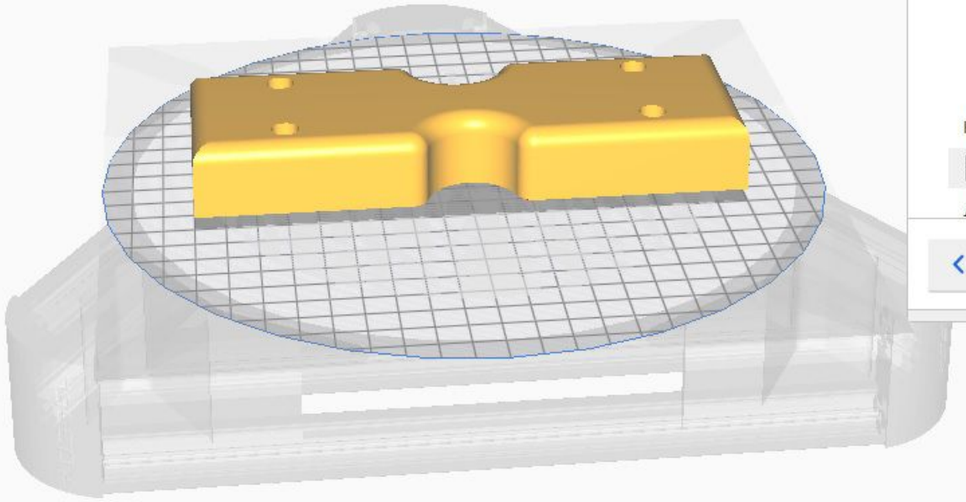
Shell

Wall Thickness	1	mm
Wall Line Count	2	
Top/Bottom Thickness	1	mm
Top Thickness	1	mm
Top Layers	0	
Bottom Thickness	1	mm
Bottom Layers	999999	
Horizontal Expansion	0	mm

Infill

Infill Density	100	%

Recommended



Object list

AKP_YagiPart1

180.0 x 60.0 x 24.0 mm

Slice

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Ultimaker Cura

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cura.

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Anycubic Kossel Plus

Generic PETG

Fine 0.1mm | 100% | Off | Off

Print settings

Profile: Fine - 0.1mm

search settings

Infill

Infill Density	100 %
Infill Pattern	Lines
Connect Infill Lines	✓
Extra Infill Wall Count	0
Infill Overlap Percentage	11 %
Infill Overlap	0 mm
Skin Overlap Percentage	6 %
Skin Overlap	0.024 mm

Material

Printing Temperature	245 °C
Build Plate Temperature	80 °C
Enable Retraction	✓

Speed

Recommended

Object list

AKP_YagiPart1

180.0 x 60.0 x 24.0 mm

Slice

NLD 12:20 21-10-2019

Materiaal keuze

1. Polylactic acid (PLA)
2. Acrylonitrile butadiene styrene (ABS)
3. Polyethylene terephthalate glycol (PETG)

PLA

Makkelijk te printen
Vrij sterk
Lage krimpfactor
Lage kosten

Niet hittebestendig
Niet weersbestendig

Biologisch afbreekbaar

ABS

Hittebestendig
Vrij sterk maar breekbaar
Lage kosten

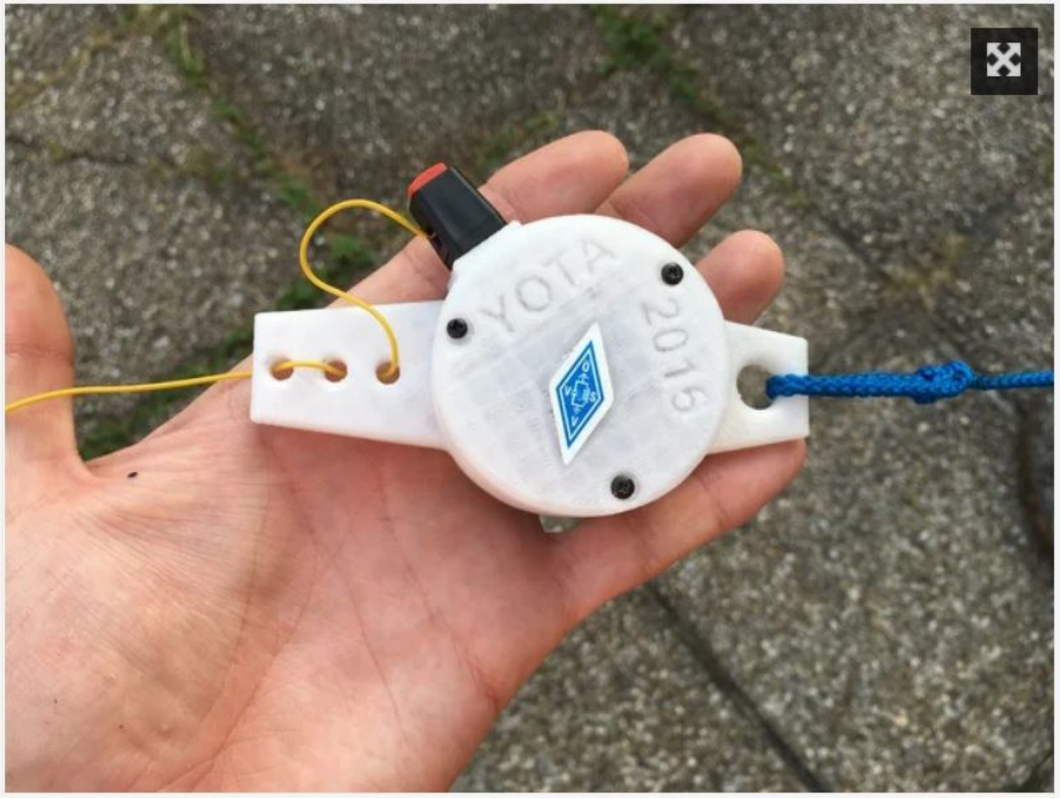
Moeilijker te printen
Hoge krimpfactor
Niet weersbestendig (gevoelig voor UV)

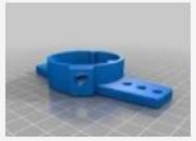
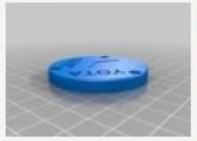
Niet biologisch afbreekbaar

YHT

High-Z End-fed Antenna without cableroll Yota 2016 Austria

by s00500 Aug 30, 2016



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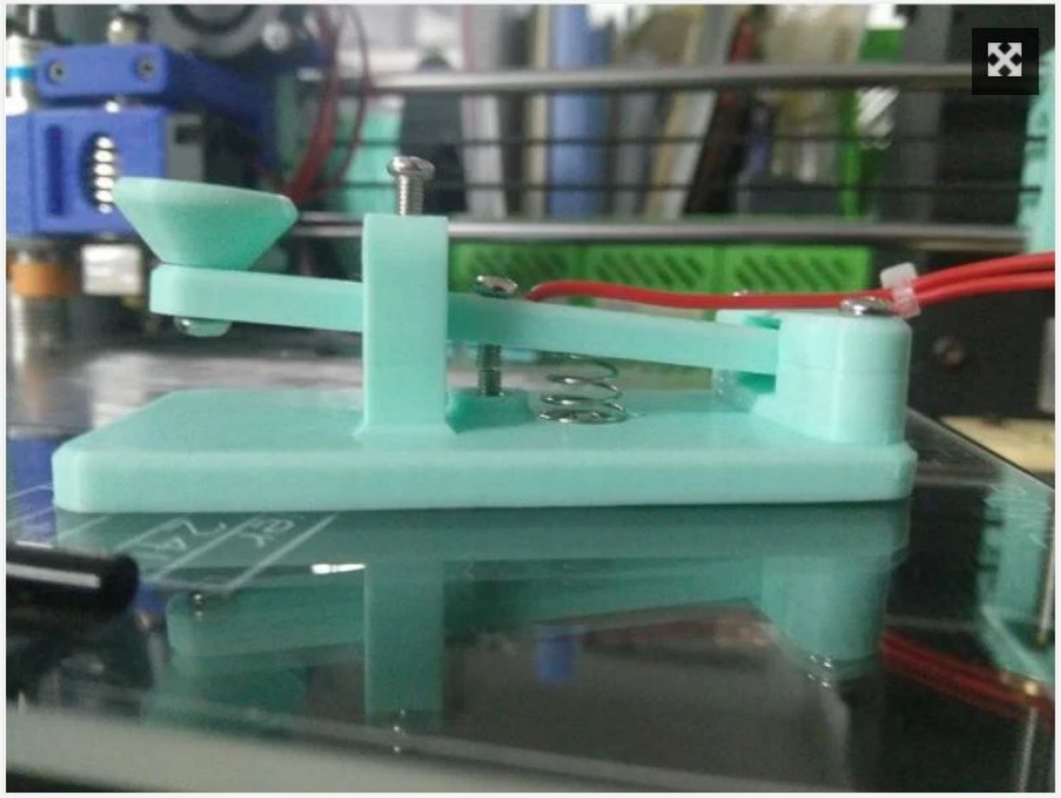
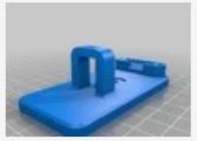
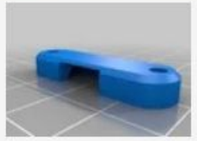
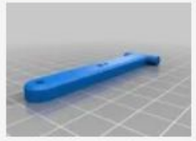
Morse Straight Key

by GeeMing Apr 20, 2018



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