

3D Printing & Amateur Radio

Matt 2E0YML

Dunstable Downs Radio Club

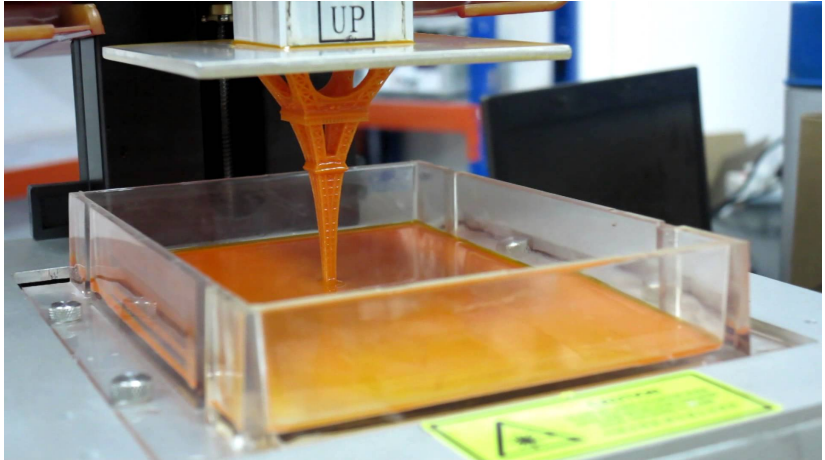
2023-09-14

Agenda

- 3D Printing Types
- Materials
- Applications
- Modelling
- Printing

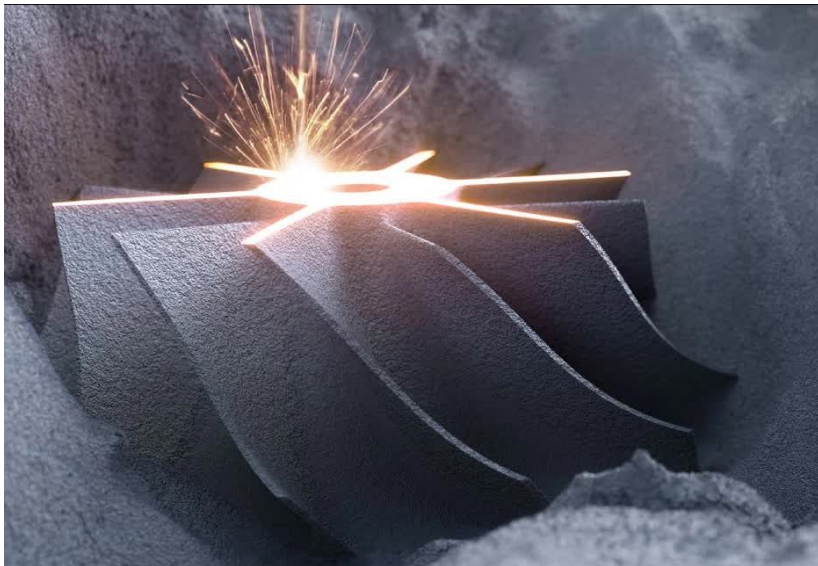
- SLA
- SLS
- FDM

■ Stereolithography Apparatus



Types - SLS

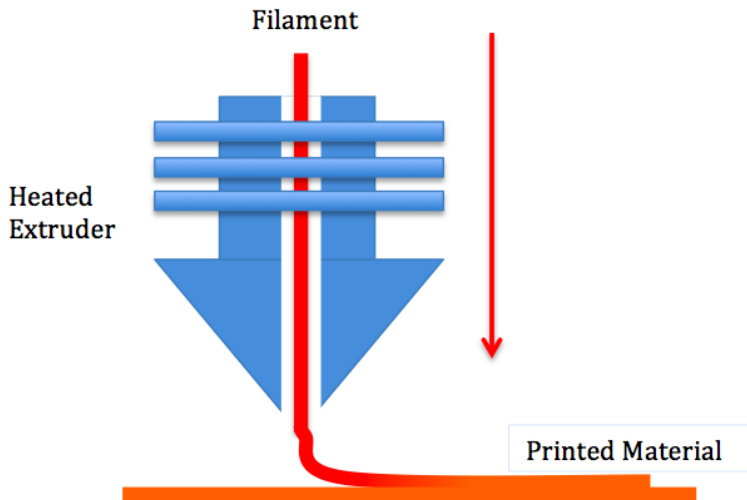
■ Selective Laser Sintering

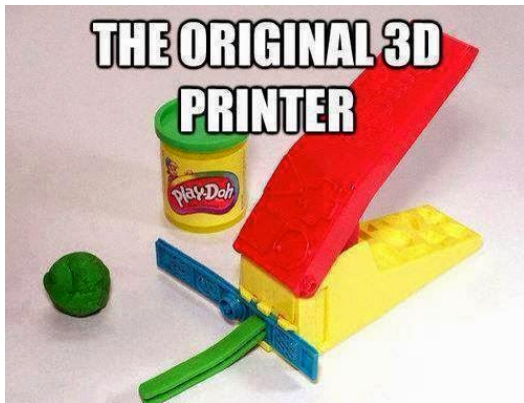


■ Fused Deposition Modeling



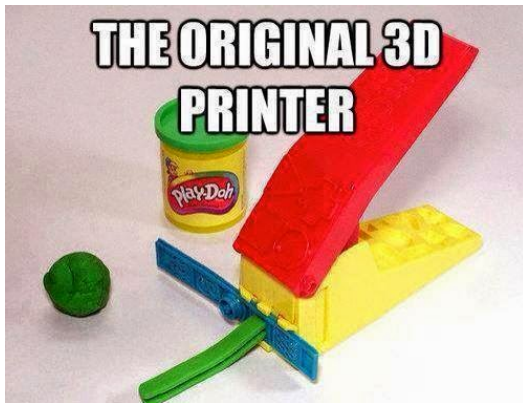
Fused Deposition Modeling





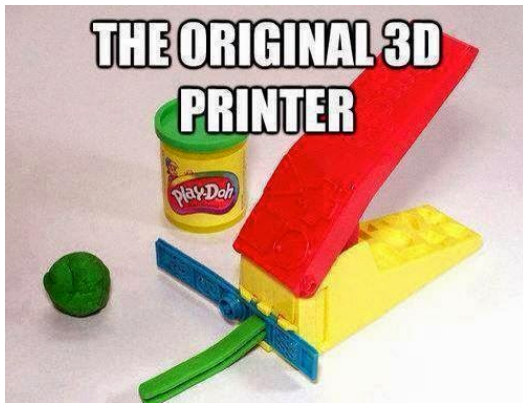
Why?

- Design and print your own items **on demand**



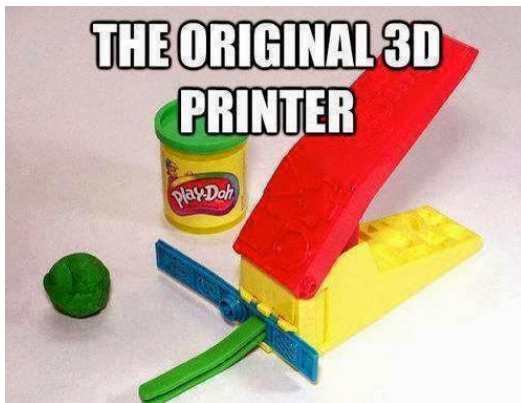
Why?

- Design and print your own items **on demand**
- Wide range of materials, styles, colours



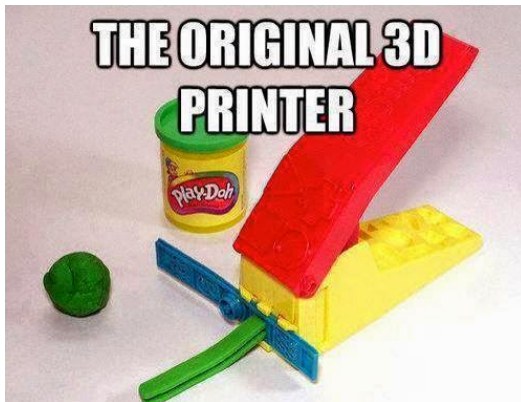
Why?

- Design and print your own items **on demand**
- Wide range of materials, styles, colours
- Cost effective - 1kg = £20

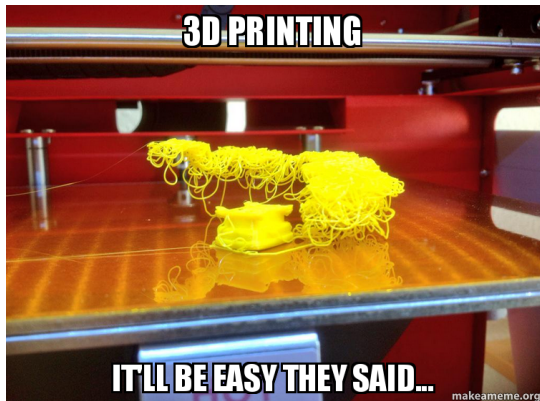


Why?

- Design and print your own items **on demand**
- Wide range of materials, styles, colours
- Cost effective - 1kg = £20
- Efficient

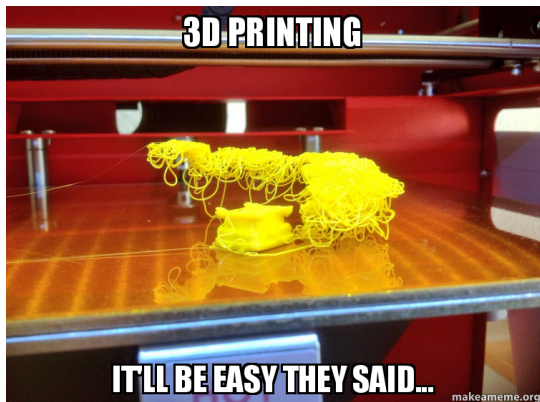


Why not?



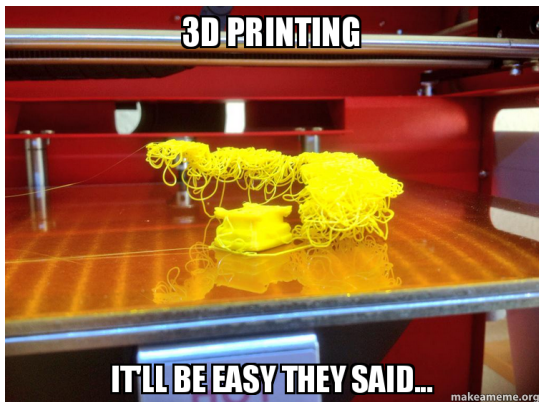
Why not?

- Can take a lot to get up and running



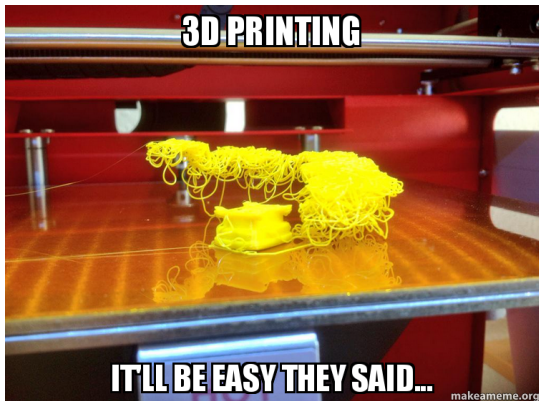
Why not?

- Can take a lot to get up and running
- ...another hobby...



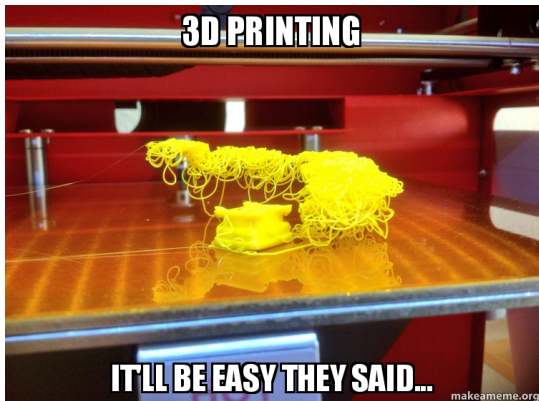
Why not?

- Can take a lot to get up and running
- ...another hobby...
- Long print time

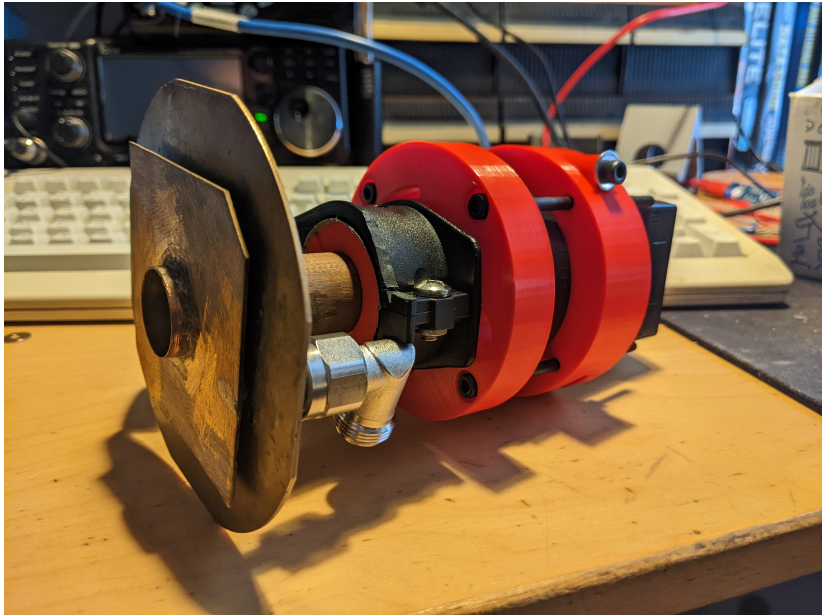


Why not?

- Can take a lot to get up and running
- ...another hobby...
- Long print time
- Noisy



Radio Applications



Radio Applications



Radio Applications



Radio Applications



Radio Applications



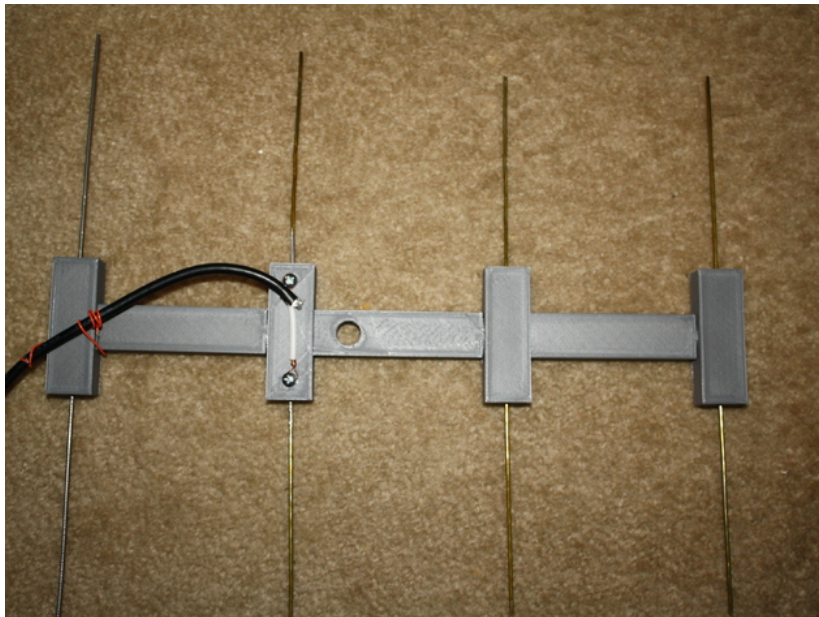
Radio Applications



Radio Applications



Radio Applications



Materials



■ PLA



Materials

- PLA
- ABS



Materials

- PLA
- ABS
- PET



Materials

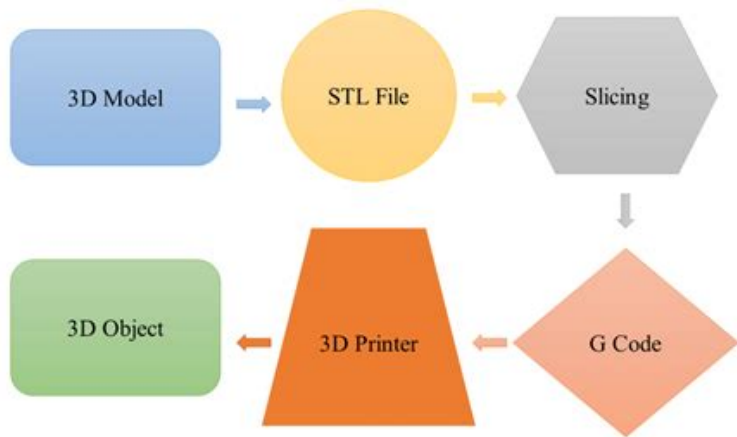
- PLA
- ABS
- PET
- Lots more...



Printer



Models



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Goku Flying

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bottle cap for crown cork bottles

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Ham Radio Keychain

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@KR4MT_714851

Ham Radio Callsign

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WSAUG
@WSAUG

Mobile Ham Radio Cooler

👍 6 🌟 0 📏 9 📌



WSAUG
@WSAUG

Run Ham Radio Collection

👍 5 🌟 0 📏 4 📌



atvfool
@atvfool_570054

Ham Radio HT Stand



Thump2010
@Thump2010_791839

Duplex Ham Radio Hotspot



Maker Murph
@MakerMurph

HAM Radio Loading Coil



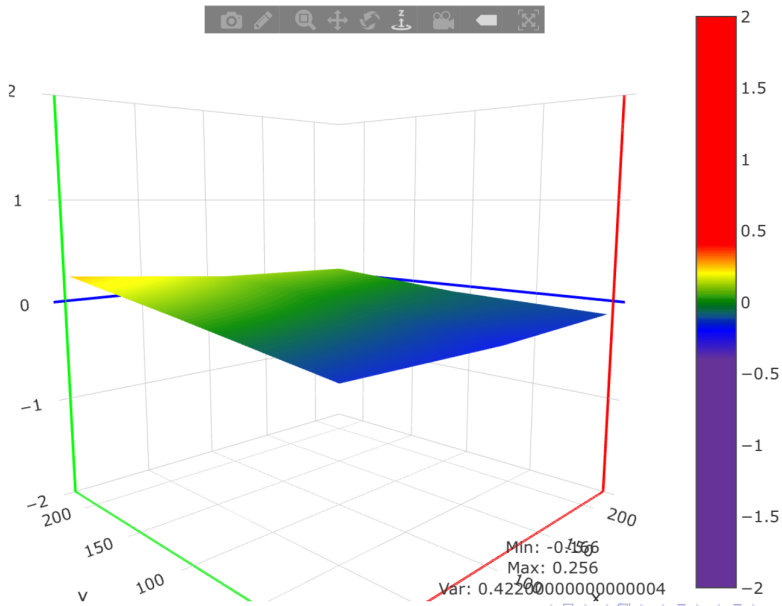
TacoDan
@TacoDan_421828

Tacoma HAM Radio Mount

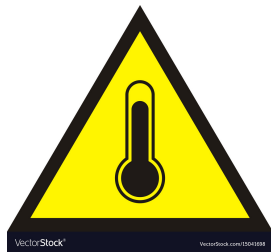
Slicing



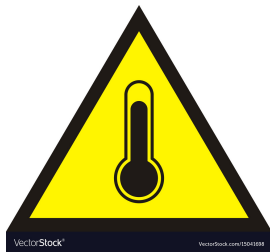
Bed Levelling



Temperature

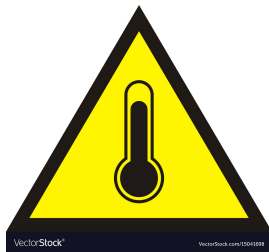


- Hot End



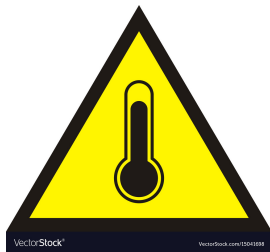
Temperature

- Hot End
- Bed



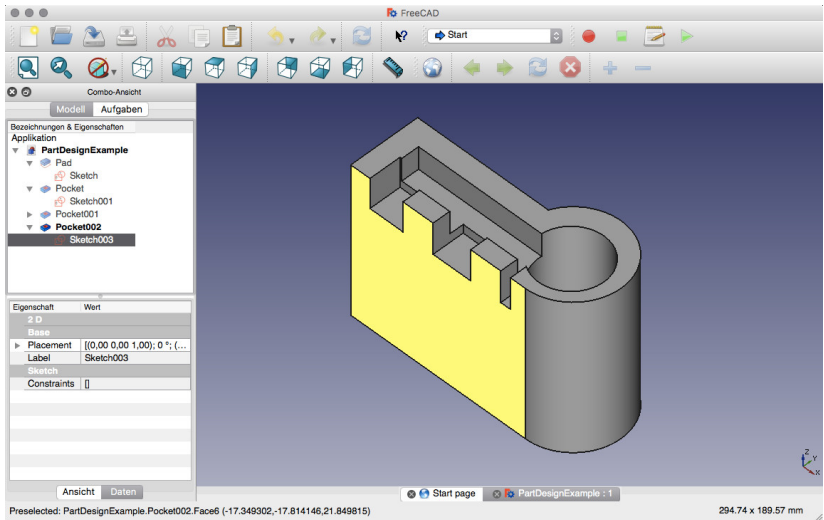
Temperature

- Hot End
- Bed
- Ambient



Bed Adhesion





OpenSCAD

```
Editor
1 linear_extrude(5) {
2   text("2EOYML", size=14, "Hermit");
3 }
```

