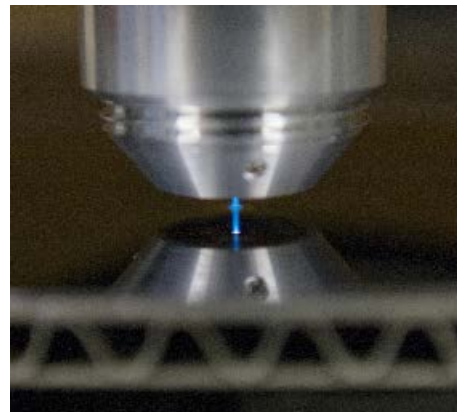
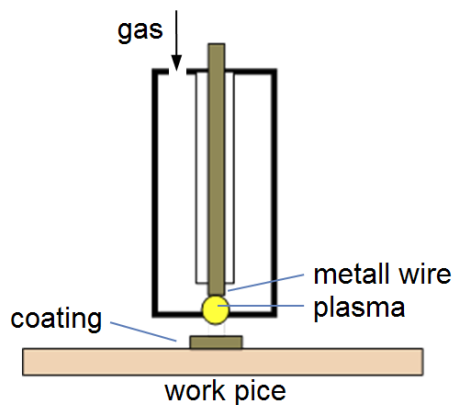


## Sputter metallisation at atmospheric pressure

- High quality metallisation
- Noble metals: Gold, Platinum, Palladium
- Economic with small batches
- Easy to use
- Solves special application needs
- No galvanic, no vacuum

## Functional principle



Coating through cathodic evaporation at atmospheric pressure

- A DC glow plasma is generated around a metallic target in form of a wire. Plasma is stabilized using a mix of helium and argon as working gas.
- Ions from plasma are accelerated. The swift ions are sputtering atoms from target, which form the coating at the work piece. The desired coating stoichiometry is defined by the target stoichiometry.

## Parameter

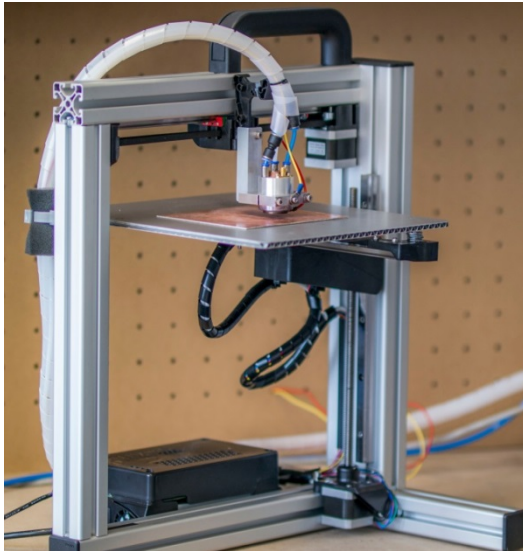
| Metall    | Coating rate * | $\frac{nm}{s}$ |
|-----------|----------------|----------------|
| Palladium | 10             | $\frac{nm}{s}$ |
| Gold      | 3              | $\frac{nm}{s}$ |
| Silver    | 3              | $\frac{nm}{s}$ |
| Platinum  | 3              | $\frac{nm}{s}$ |

\* at 60 W power and 3 x 3 mm<sup>2</sup> area measured

## Metallisation of Polymers

- Coating area: from  $1 \times 1 \text{ mm}^2$  to  $5 \times 5 \text{ mm}^2$

### Coating head mounted on a 3D-printer

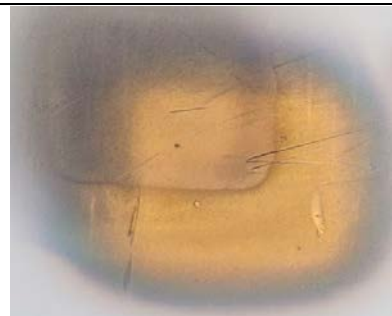


This Source is very small and easy to handle. Because of this it is an easy job to mount it on a conventional 3D-Printer.

### Examples



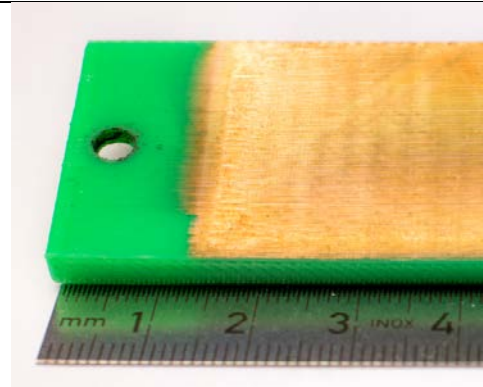
Printed polymer mask on FR4, metallised and reinforced by galvanic



Gold on Teflon



Printed polymer/gold structure with via-contact and track access



Gold on printed ABS

