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## Basics of screen printing for printable and flexible electronics

Vipuvoimaa  
EU:lta  
2014–2020

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Screen printing is a common technique in printing electronic components. Materials like conductive inks and substrates enable a new approach to product development and manufacturing. Operators' role in the printing process is significant for the desired quality. The video presents a step-by-step guide on how to print an electronic component with a screen printer and highlights the most important quality deviations. This video is spoken in Finnish, but subtitles are available in English.



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The video presents practical printing screen printing process from preparations to printing and finishing actions. Screen printing is a cost-effective way to manufacture electronics in a small-scale production, and suitable for product development and material testing. In this video, printing is made with the EKRA E2 screen printer. [\[1\]](#) [\[2\]](#) [\[3\]](#) [\[4\]](#)

The video is a result of ESF co-funded project "Rapid apps for printed electronics", which aimed to develop the skills for printed electronics competence. The project was carried out at Oulu UAS in 2015–2018.



## References

1. [△](#)Gamota, D., Brazis, P., Kalyanasundaram, K. & Zhang, J. 2004. Printed organic and molecular electronics. Kluwer academic publishers. USA.
2. [△](#)Piila, T., Juusti, A., Kylmänen, M. & Ikonen, K. 2015. Printed electronics & diagnostic products – Printocent Designers's Handbook. Neficon Finland Oy.
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## Metatiedot

**Nimeke:** Basics of screen printing for printable and flexible electronics

**Tekijä:** Tuomaala Tomi; Tuhkala Teija; Törmänen Miia; Määttä Harri; Lehtonen Antero

**Aihe, asiasanat:** tulostettava elektroniikka, printed electronics, manufacturing processes, screen process printing

**Tiivistelmä:** Screen printing is a common technique in printing electronic components. Materials like conductive inks and substrates enable a new approach to product development and manufacturing. Operators' role in the printing process is significant for the desired quality. The video presents a step-by-step guide on how to print an electronic component with a screen printer and highlights the most important quality deviations. This video is spoken in Finnish, but subtitles are available in English.

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### Näin viittaat tähän julkaisuun

Tuomaala, T., Tuhkala, T., Törmänen, M., Määttä, H. & Lehtonen, A. 2019. Basics of screen printing for printable and flexible electronics. Video. ePooki. Oulun ammattikorkeakoulun tutkimus- ja kehitystyön julkaisut 39. Hakupäivä xx.xx.xxxx. <http://urn.fi/urn:nbn:fi-fe2019050614470>.