

Inkjet Printing

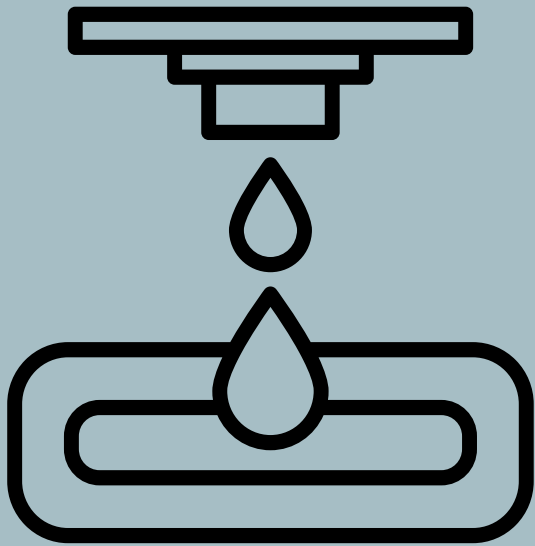
The computer sends electronic signals to the printers control board. The signals are then interpreted and sent to the printers ink and toner cartages. Then the file is printed by having the inkhead moves left and right and place dots of heated ink on a piece of paper moving down.

Uses:

Printing photos or text documents. Best used for personal projects.

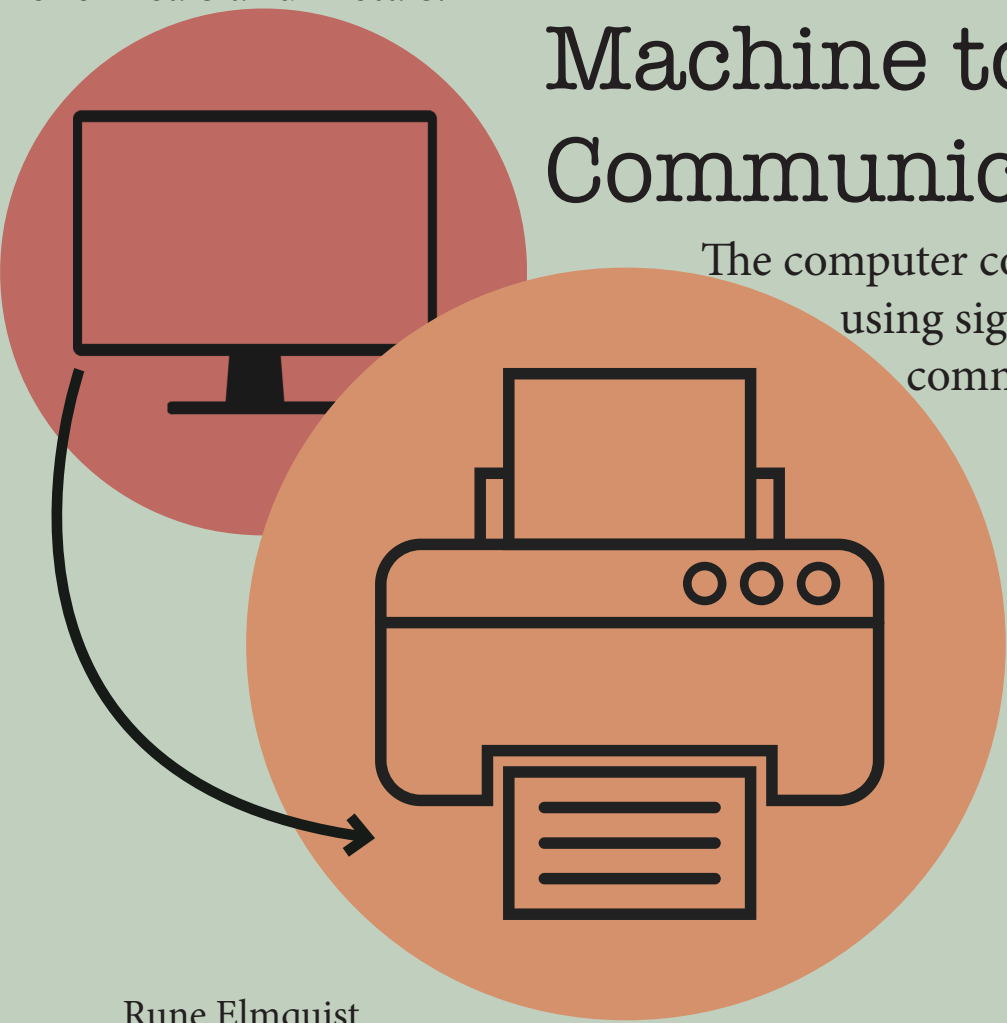
Environmental Impacts:

- Since used ink cartridges can't easily be recycled, an estimated 70% of them will end up in landfills
- Production of ink cartridges uses natural resources which increases the amount greenhouse gasses being emmited.
- Ink and toner also contain harmful chemicals and metals.



Machine to Machine Communication:

The computer communicates to the printer using signals. The the control board communicates to the inkhead.



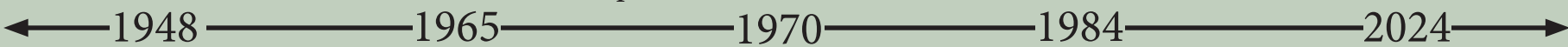
By 2029:

- The inkjet market will reach 2.29 trillion A4 prints
- The market will grow to an average CAGR (Compound Annual Growth Rate) of 6.6%
- The market will reach about \$125.9 billion

Rune Elmquist patented a chart recorder with a small tube that emits ink to a moving slip of paper

Simens was the first to sell a “drop-on-demand” printer

Current technology allows us to print around 16,000 color combinations using CMYK



Richard G. Sweet developed a chart recorder with a broken stream of ink creating ink droplets with an electric charge

Epson introduces a stand alone piezoelectric inkjet printer

<https://pixabay.com/vectors/computer-pc-central-unit-screen-2237420/>
<https://www.vecteezy.com/vector-art/331710-printer-line-black-icon>
<https://thenounproject.com/icon/inkjet-6327909/>
<https://www.smithers.com/services/market-reports/printing/the-future-of-inkjet-printing-to-2029>
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<https://www.stptexas.com/blog/inkjet-vs-laser#:~:text=Inkjet%20and%20laser%20printers%20are,regular%20high%2Dvolume%20document%20printing.>
[https://www.lenovo.com/us/en/glossary/how-does-a-printer-work/?orgRef=https%253A%252F%252Fwww.google.com%252F&srltid=AfmBOoq\\$UOqo7GB3cHLQEYqQAs\)1ZppQon6hMsZYT-nmPHAj\\$ZVsXxCTx](https://www.lenovo.com/us/en/glossary/how-does-a-printer-work/?orgRef=https%253A%252F%252Fwww.google.com%252F&srltid=AfmBOoq$UOqo7GB3cHLQEYqQAs)1ZppQon6hMsZYT-nmPHAj$ZVsXxCTx)
<https://spectrum.ieee.org/inkjet-printer#:~:text=Inkjet%20technology%20dates%20back%20to,a%20moving%20strip%20of%20paper.>