Printer and Multi-function Devices

Overview

Common printer types

- Laser
- Inkjet
- Thermal
- Impact
- 3D

Multi-function Device Configuration

Common Printer Types

Laser

Rotating cylindrical imaging drum

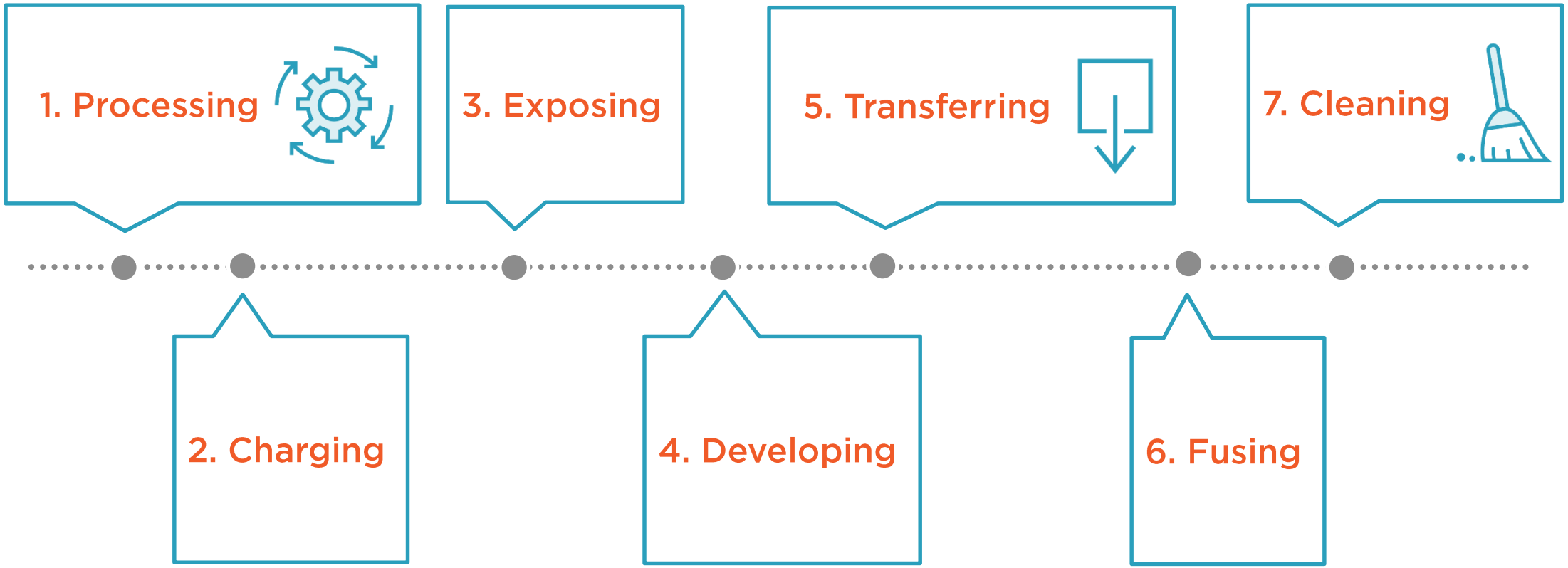
1 - Laser applies magnetism to the drum

2 – Toner is then attracted to magnetized locations on the drum

3 – Pickup rollers bring paper into the printer

4 - Toner on drum is then transferred to paper via the transfer belt (part of the fuser assembly)

Laser Printing Imaging Process



Inkjet

- Uses ink cartridges
- Pressure or electrical pulse force ink out of tiny nozzles
- Calibration
- Cartridge replacement is expensive

Inkjet Printer Cartridges

Thermal

Uses coated paper

Common with POS receipts

Regions on the paper are heated and then darken

Impact

Dot matrix printers

A print head uses electrical charges for pins to form shapes

Useful for printing multiple copies

3D

Useful for simple replacement parts, product prototyping

3D modeling using Computer Aided Design (CAD) software

Uses material layering to create physical objects

Consumables:

- Wax
- Plastic compound (filament)
- Power and glue

Rendered 3D objects may need time to dry or cure

3D Printer

Printer Maintenance

Consumables: Replace paper, toner, ink

Clean rollers, clear paper jams, remove printing debris

Calibration, replace failed components

Cloud Printing

Ability to print from any device (including BYOD) from any network

Requires an association between a printer and a cloud account

Printer drivers are not an issue

Demo

Share a printer over the network using Windows 10

Multi-function Device Configuration

MFD Configuration

Network settings

- Wired: Ethernet, USB, serial
- Wireless: Bluetooth, Wi-Fi
- Security settings
- Ad hoc, infrastructure

Scanning

- Email, network folder, fax, computer

Power management

Firewall rules

Administrator settings

Demo

Configure a multi-function device over the network

Summary

Common printer types

- Laser
- Inkjet
- Thermal
- Impact
- 3D

Multi-function Device Configuration