OPCUG

Users helping users
for over 40 years

MIA

Alan ~~German~~ & Chris Taylor
Ottawa PC Users' Group

May 20, 2026

SDR dongle

- How best to get started in using an SDR (software-defined radio) dongle to act as a receiver
- Through the computer or cell phone to listen to the RF spectrum?

Paul Graner

Share

New Microsoft PowerToy!

Share

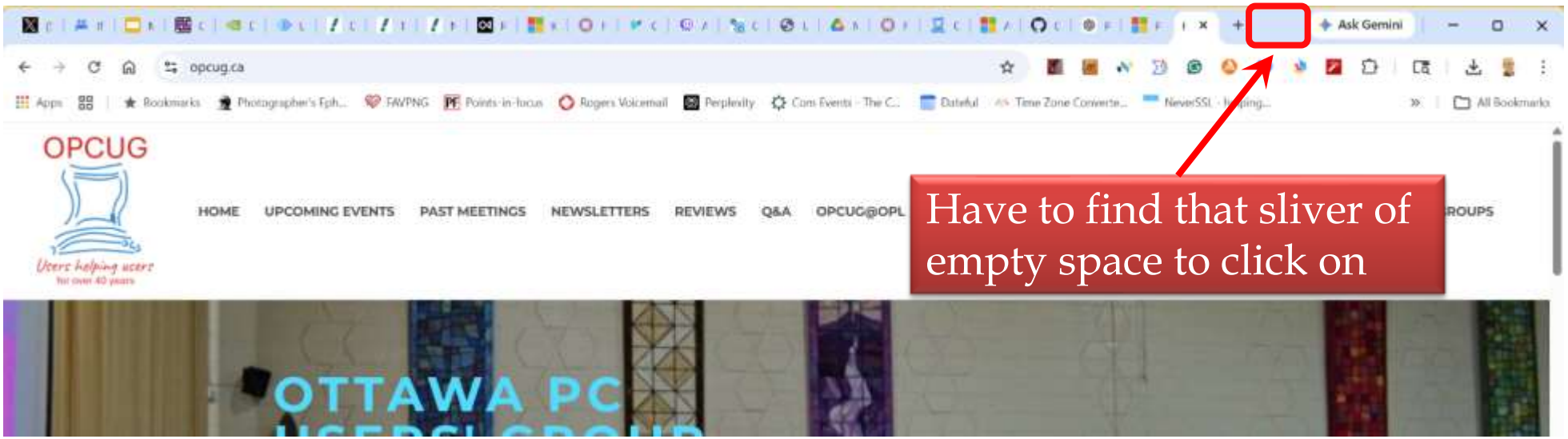
Microsoft PowerToys

- Everyone knows by now…
- I am a huge fan of Microsoft PowerToys
  - collection of 32 utilities
  - *super-charge* many aspects of using your computer
  - almost daily basis I use:
    - Advanced Paste, Fancy Zones, Image resizer, Keyboard Manager, and Quick Accent
  - on a weekly basis, I use many more
- Install the entire collection
  - Microsoft Store: search for Microsoft PowerToys
  - Github: https://aka.ms/installPowerToys
  - Winget from a Command prompt or PowerShell
    - to install for current user
      - `winget install --id Microsoft.PowerToys --source winget`
    - to install for all users
      - `winget install --id Microsoft.PowerToys --source winget --scope machine`

Share

Normal window move

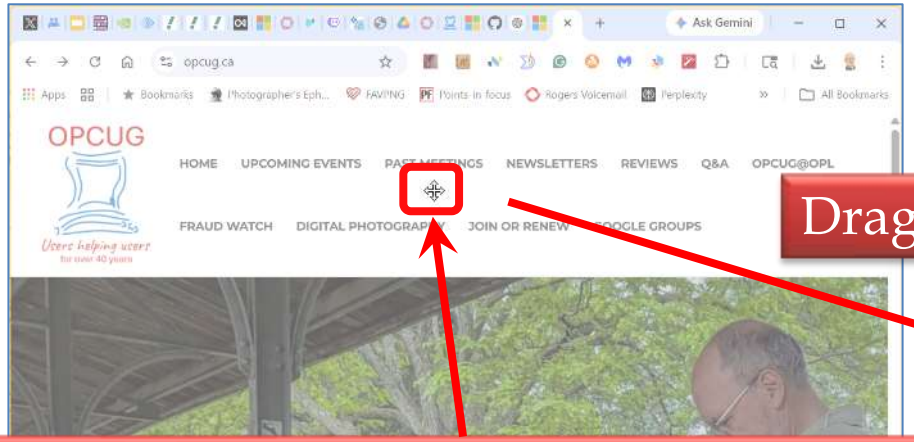
- To move a window
  - click and hold on the *title bar* of the window
  - drag the window to a new location
  - release the mouse button
- But what about when a title bar is cluttered?



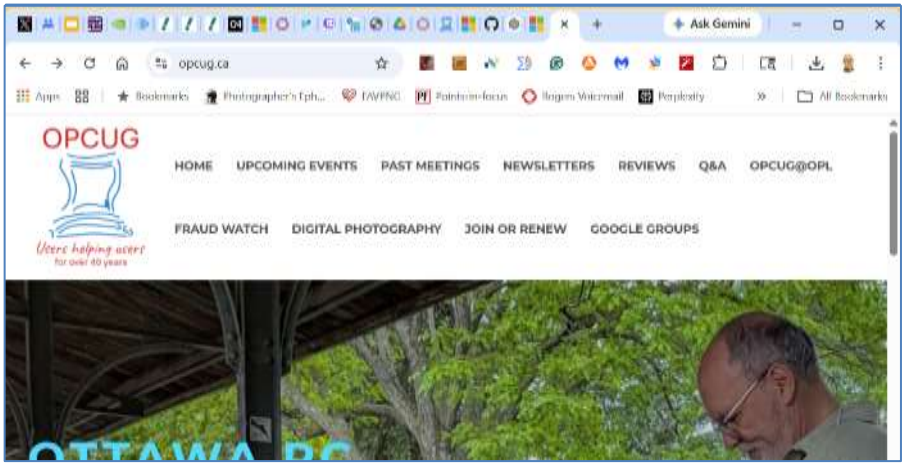
Share

Grab And Move

- Activated when you hold down the Alt key



Drag window



Hold down Alt key
Click & hold mouse *anywhere* in window
- window dims
- mouse pointer shows 4-headed arrow

Release mouse button

Share

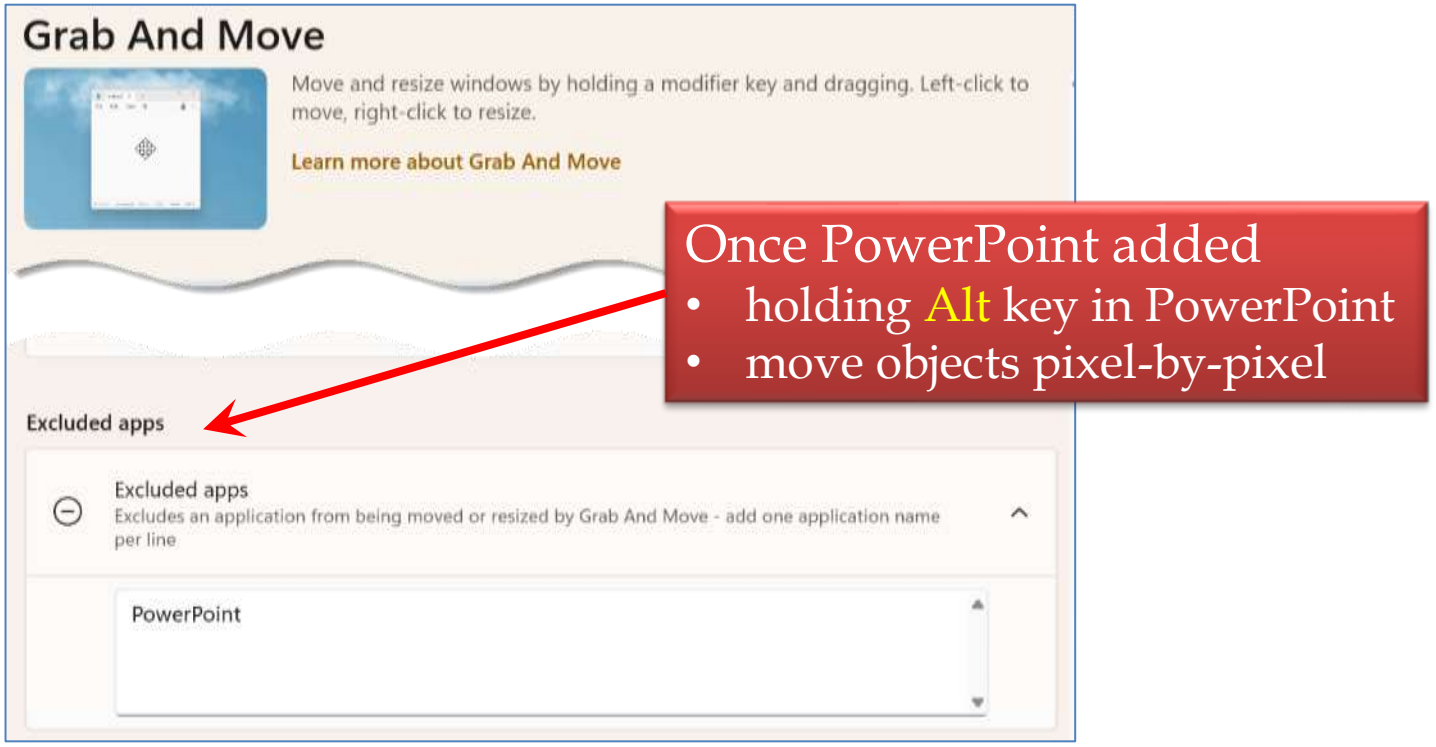
Fly in the ointment…

- In PowerPoint
  - when dragging objects, movements jump in large increments
- Holding down the Alt key
  - allows very fine pixel-by-pixel adjustments in position
- Grab And Move
  - overrides PowerPoint's use of Alt key
    - thinks you want to move the window
  - can start the dragging of object & then hold the Alt key
    - doesn't try to move the window
    - but still moves in large increments (not pixel-by-pixel)

Share

Fortunately…

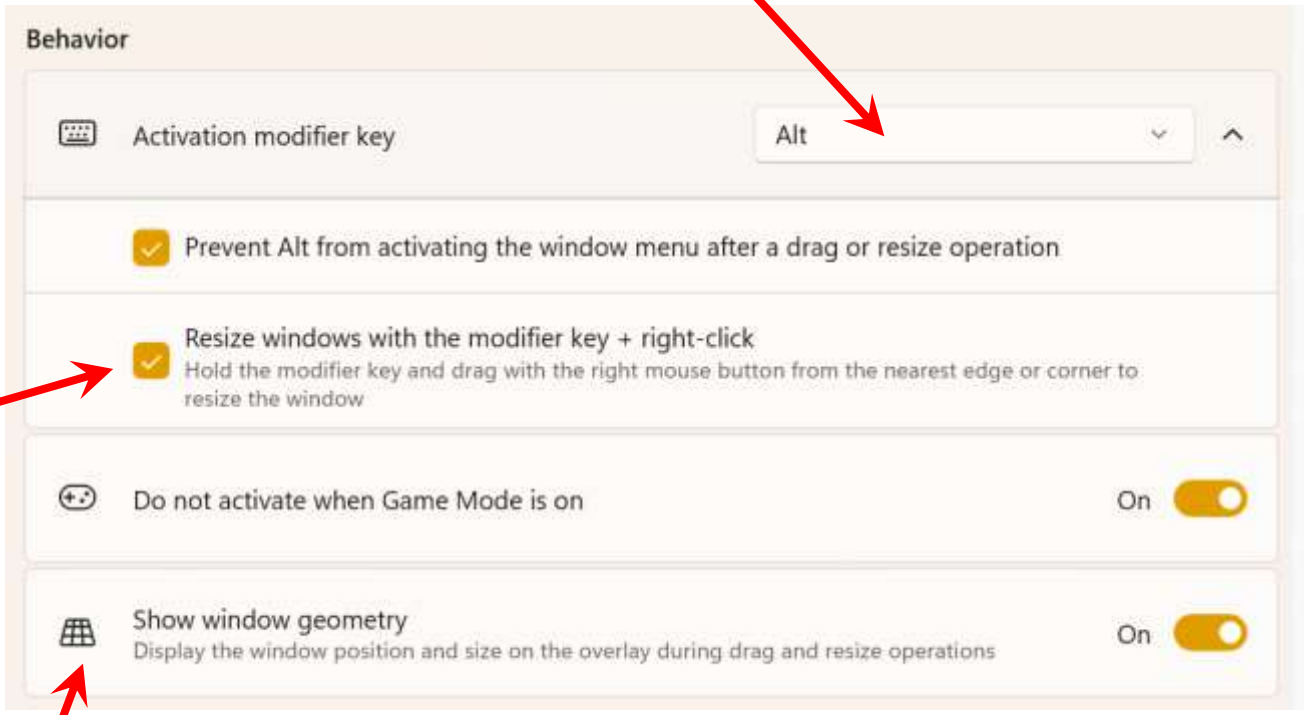
- Setting in Grab And Move
- *Excluded apps*
  - programs where Grab And Move should be disabled



Share

Other customizations

Choose Alt or Windows key to activate



Really nice

- rather than trying to catch the edge of a window to resize it

Shows small box at center of window being moved

- window's top-left corner position in pixels from top-left of screen
- size of the window in pixels

Share

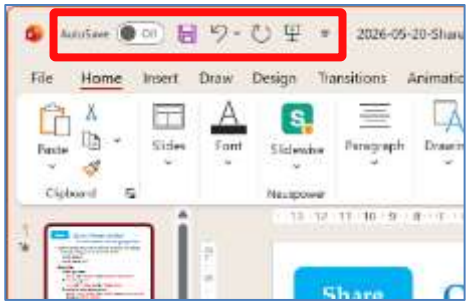
Quick Access toolbar in Microsoft Office programs

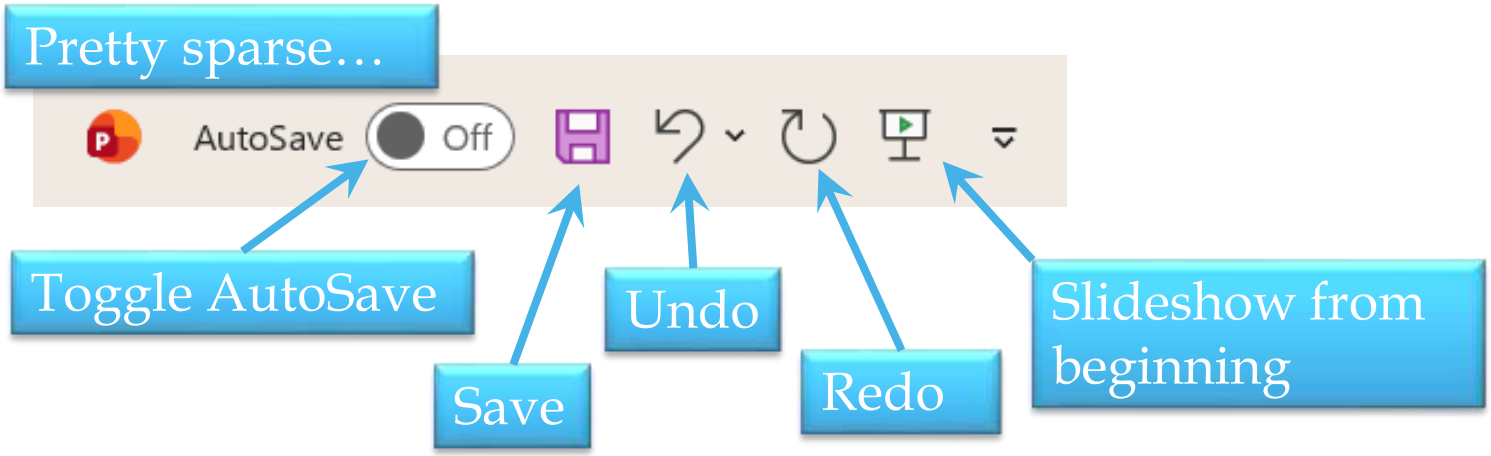
- Lots of operations take multiple clicks of the mouse …and you may have to hunt for them!
  - which tab is it?
  - which section is it?
  - which icon is it?
- Examples:
  - Word: spell check
    - Review tab > Proofing section > Spelling & Grammar
  - Excel: freeze panes
    - View tab > Window section > Freeze Panes
  - PowerPoint: bring object to front
    - Shape/Picture Format tab > Arrange section > Bring forward dropdown > Bring to Front

Share

Faster access to commands

- For frequently used commands wouldn't it be nice to have single-click access?
- Quick Access toolbar in top-left of window

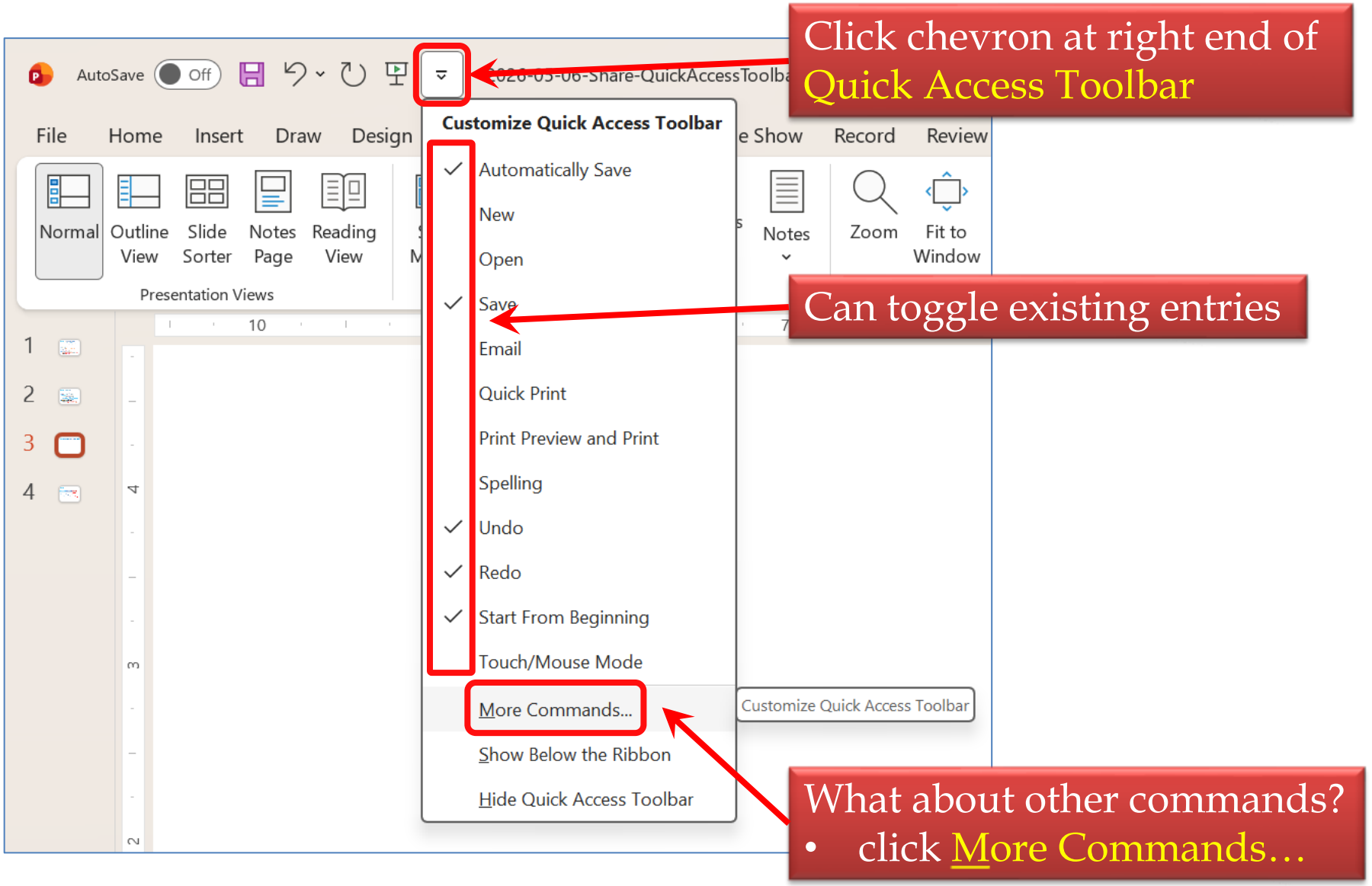




- Don't see Quick Access Ribbon?
  - right-click on ribbon > Show Quick Access Toolbar, or
  - File tab > Options > Quick Access Toolbar > Show Quick Access Toolbar

Share

Customize Quick Access Toolbar



Share

Customize Quick Access Toolbar

Can choose from a wide range of subsets of commands

- defaults to Popular Commands

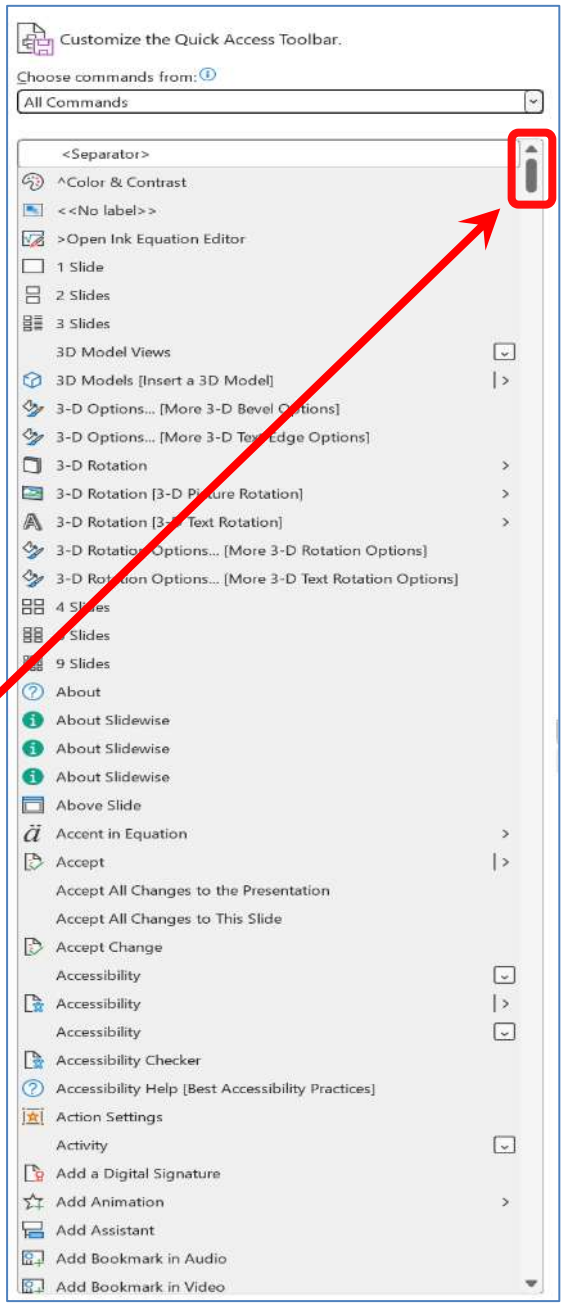
Long list of Popular Commands

- note length of scroll box

Or choose All commands

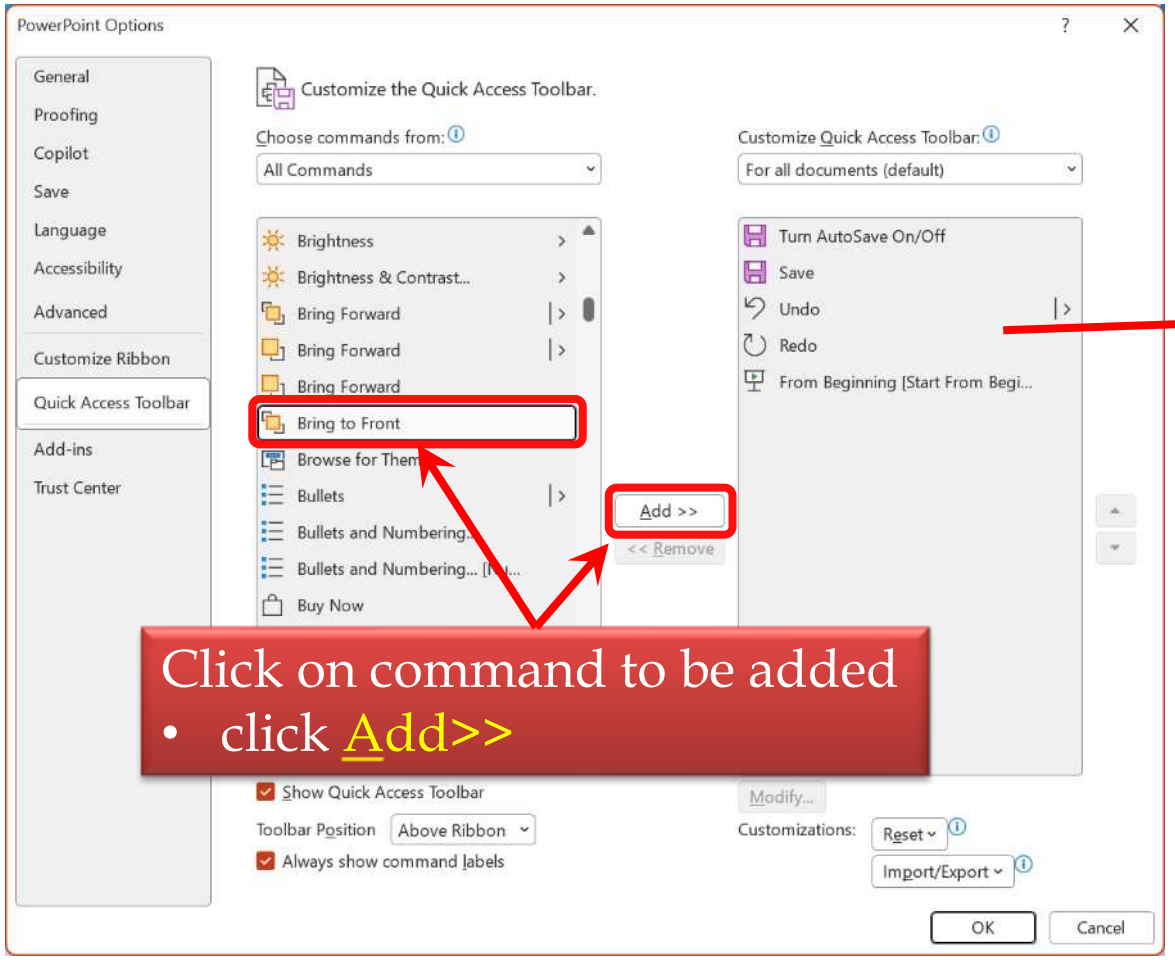
Every command in PowerPoint

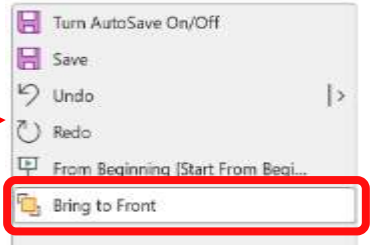
- note length of scroll box



Share

Customize Quick Access Toolbar





Click on command to be added

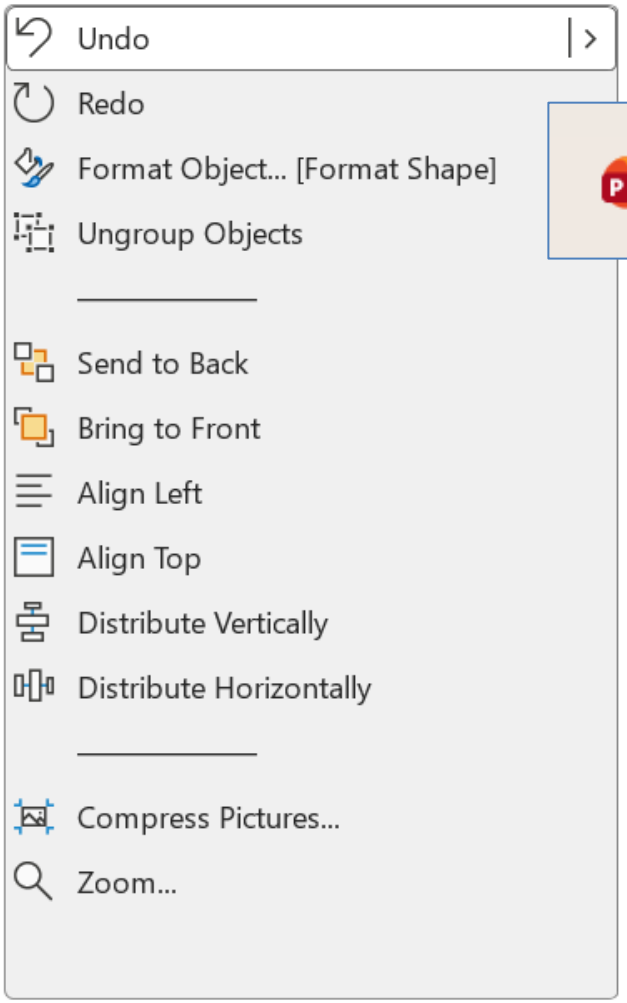
- click Add>>

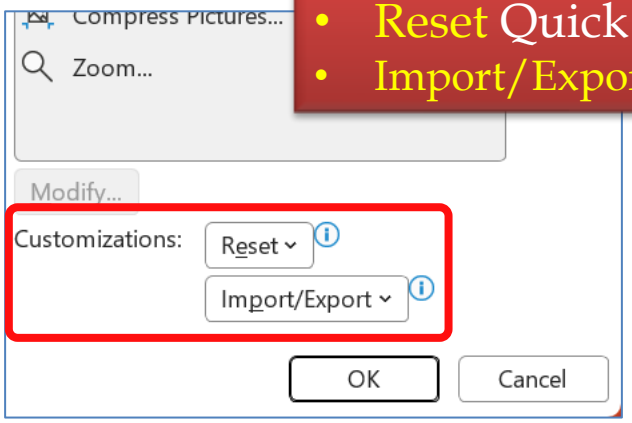
Can

- re-order items
- remove items not needed
- add separators
- reset to default
- import/export
  - useful for saving or transferring to another computer

Share

My Quick Access toolbar in PowerPoint





Bottom of More Commands dialogue box
- Reset Quick Access toolbar to default
- Import/Export Quick Access toolbar

Note:
- each program (Word, Excel, PowerPoint)
  - customized separately
  - imported/exported separately

Share

Laptop Auto On / Off

France Picard's laptop is a Dell Latitude 5511:
Windows 11 Pro, Intel i7, WD NVMe SSD 1TB, 32GB DDR4 RAM

The laptop's day-to-day use is for personal file management.

- Microsoft OneDrive is utilized to synchronize and share files
- Backup4all is used for Sunday full backup and Mon-Sat differential backups
- Macrium Reflect "split image" is created on Wednesday evening
  (split image 4GB file chunks improve upload efficiency to the cloud)

Backup4all and Macrium Reflect files are synchronized onto Google Drive.

Client requirements:
- Reminder at 11:00 pm that computer will shutdown at 11:45 PM
- Automatically turn off the laptop at 11:45 pm
- Automatically turn on the laptop at 9:00 am

Harvey Hope

Share

Laptop Auto On / Off

Background:

Windows hibernation is not the same as sleep, though both resume your work.
Sleep keeps open apps in RAM using battery low power for quick wake-up.

Hibernate is ideal for long periods, saving any open work to ***hiberfil.sys*** on the hard drive and powering off completely to use zero battery.

We will use the Hibernate option to facilitate auto off and conserve battery.
(Hiberfil.sys size is based upon RAM size and can be adjusted accordingly.)

Hibernate must be enabled to perform the auto turn off.
The command **powercfg /h on** enables the hibernation feature and creates the hiberfil.sys file.

At 11:00 pm, the client receives an alert the computer will shutdown at 11:45 pm.
The alert reminds the client to close all open apps and work files.

Share

Laptop Auto On / Off

France uses a riser stand with the laptop lid closed on the middle shelf. Keyboard and mouse are on the desk.

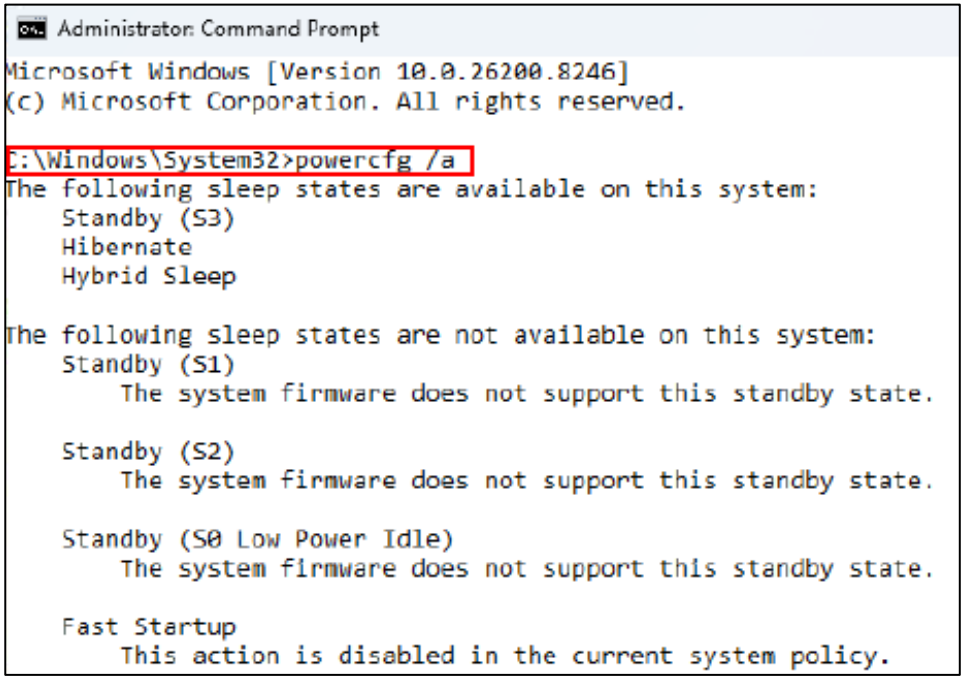
Manually extracting and opening the laptop to turn it on / off can cause the cables to loosen and disconnect.

Hence the requirement for auto turn on / off.

Share

Laptop Auto On / Off

Use command **powercfg /a** (Available Sleep States) to confirm Hibernate is available.



State	Name	Description
S0	Working	System is awake, or in "Modern Standby" Keeps the system running in a very low-power state.
S1	Standby	CPU stops, RAM refreshed. High power consumption, fast wake.
S2	Sleep	CPU powered down, RAM refreshed. Rarely used.
S3	Suspend to RAM	Deeper sleep, only RAM powered. Low power consumption.
S4	Hibernate	Volatile memory is saved to hiberfil.sys. Powered off.
S5	Soft Off	Occurs when a computer is restarted. Enters this sleep state before it is rebooted.
Hybrid Sleep		Combines the activation of a higher-power sleep state (S1 - S3) with the creation of a hibernation file.
Fast Startup		Acting as a hybrid shutdown, combining elements of shutdown and hibernation.

Share

Laptop Auto On / Off

Task Scheduler

The purpose of Task Scheduler is to automate routine maintenance and repetitive tasks on a computer by executing them automatically based on specific triggers or schedules.

Task Name: “Auto Off”

- Trigger: Daily at 11:45 pm
- Action: run command **shutdown /h** to hibernate the laptop

Task Name: “Auto On”

- Trigger: Daily at 9:00 am
- Action: run command **shutdown.exe /r /f /t 60** to initiate a fresh restart

  (**/t 60** allows the laptop an additional minute to wake)
- Conditions: "Wake the computer to run this task” to register a Wake Timer

Share

Laptop Auto On / Off

Behind the scenes ...

Hibernation is handled by a hand-off between the Windows operating system and the laptop's hardware firmware (**UEFI/BIOS**). Even when a laptop appears completely off, a small amount of power (flea power) is maintained on the motherboard to keep the **Real-Time Clock (RTC)** running.

The Wake-Up Process:
The OS Request: When you create a task in **Task Scheduler** and check the box "*Wake the computer to run this task,*" Windows registers a "Wake Timer" with the power manager.

The Hand-off: As the system enters Hibernation (S4 state), Windows communicates this timer to the **ACPI** (Advanced Configuration and Power Interface) driver.

Firmware Programming: The **ACPI** driver programs the hardware's **RTC Alarm**. This tells the motherboard's firmware exactly what time it needs to send a "Power On" signal.

The Trigger: When the **RTC** matches the scheduled time, the hardware sends a signal to the power management controller, mimicking a press of the physical power button.

Resuming: The system boots, detects it was in hibernation, loads the saved state from hiberfil.sys, and Task Scheduler executes the pending action once the user session or system services are active.

Share

Laptop Auto On / Off

Windows Event Log confirms the Sleep / Wake cycle

- Sleep time at 03:45 UTC is 11:45 pm EDT
- Wake time at 13:00 UTC is 09:00 am EDT

UTC is Coordinated Universal Time
(prime meridian 0° longitude)
Divides East/West Hemisphere

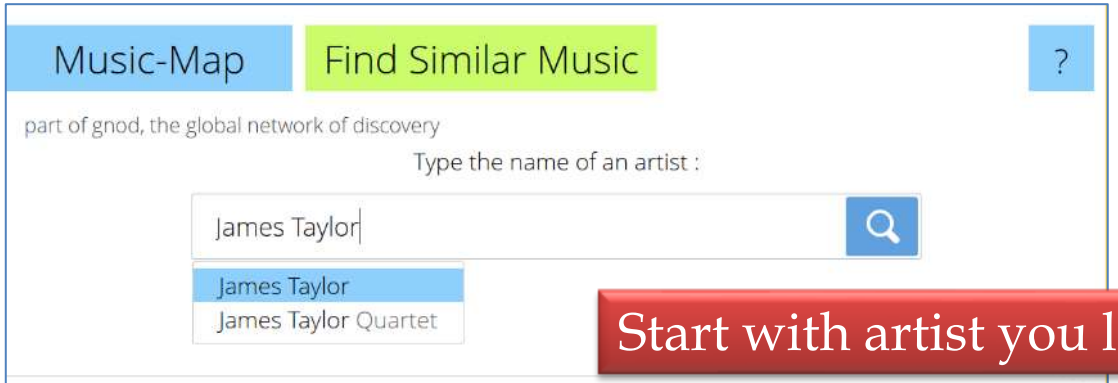
Eastern Daylight Time (EDT) is
4 hours behind UTC

Share

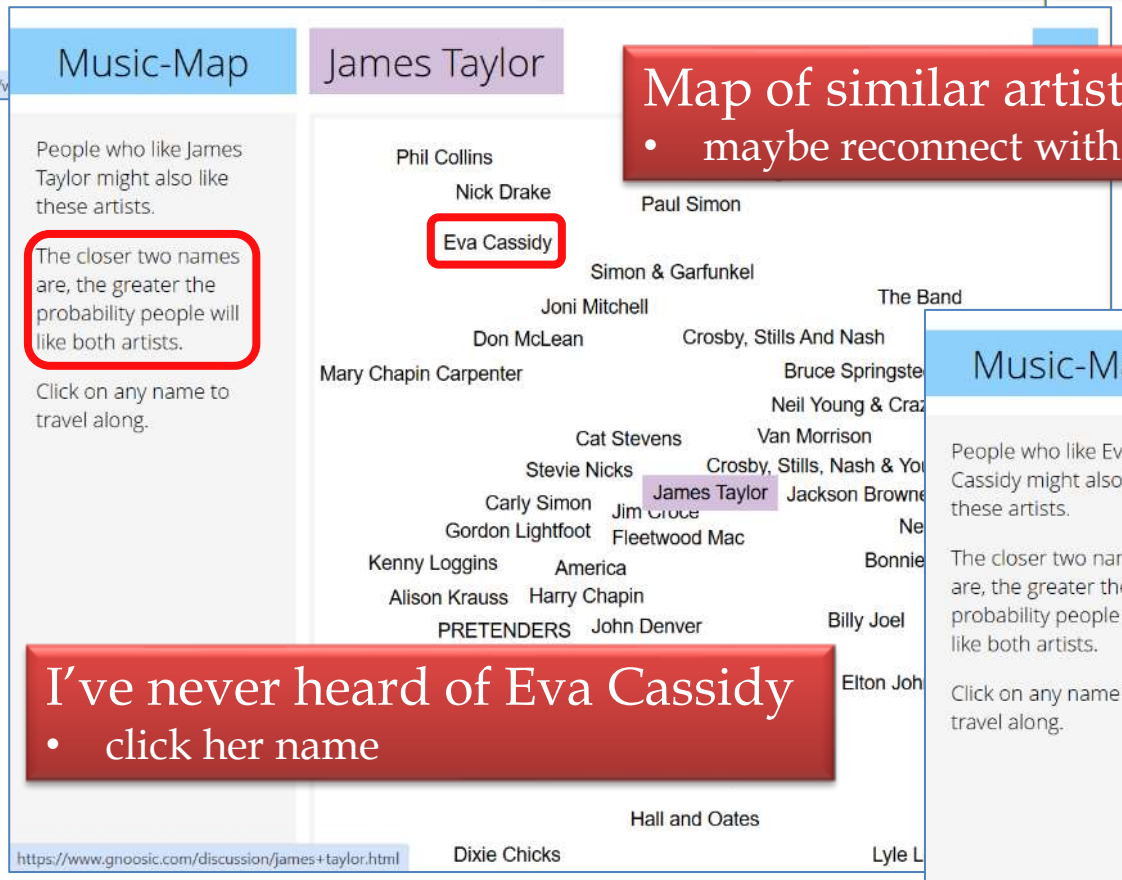
Music-Map

- You like certain musicians
- You feel in a rut and want to explore music from others
- How to find similar artists?

https://www.music-map.com



Start with artist you like

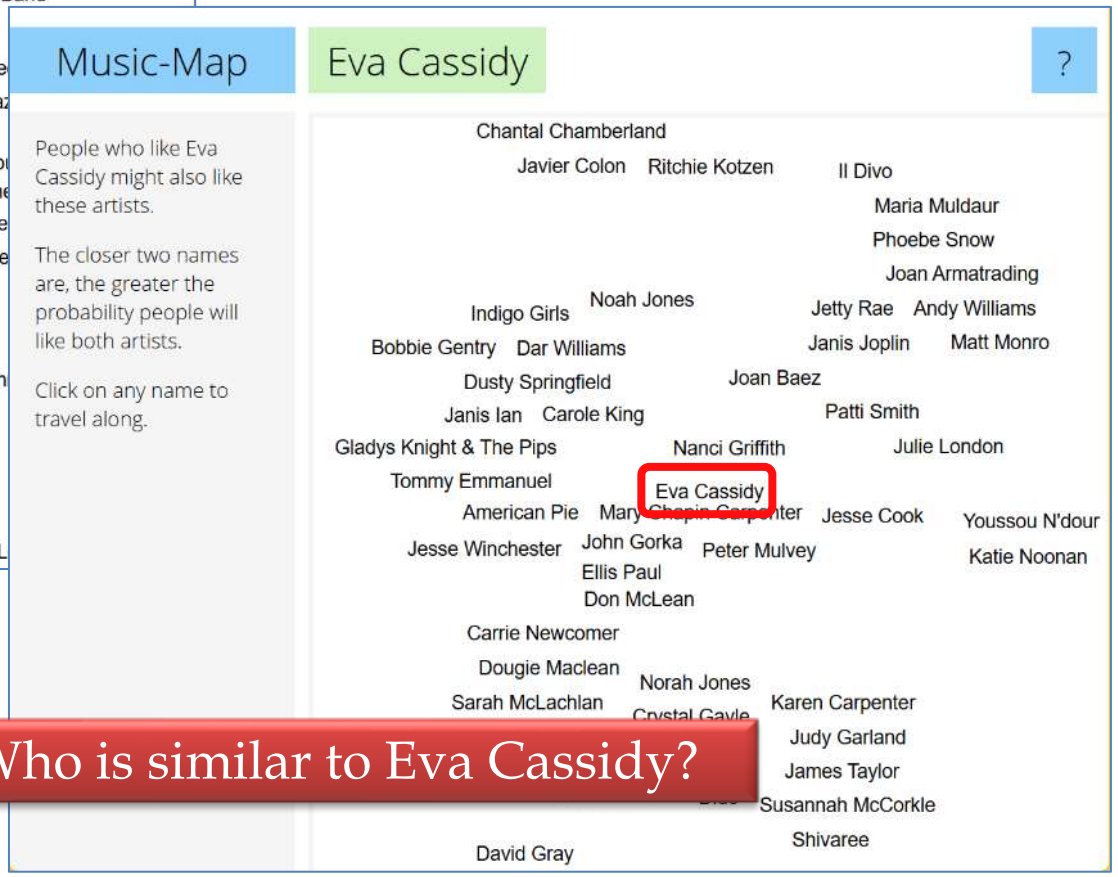


Map of similar artists

- maybe reconnect with artists you know

I've never heard of Eva Cassidy

- click her name



Who is similar to Eva Cassidy?

3D Printing for Beginners

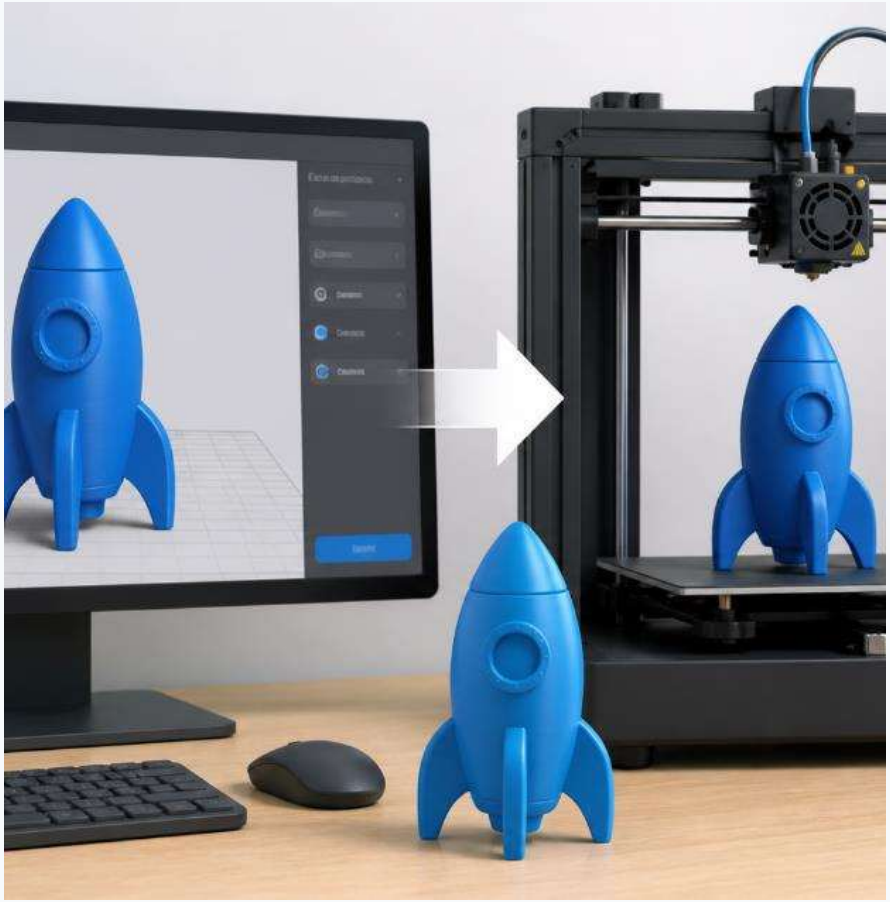
From idea to finished object

- A practical introduction for new makers
- learn the printer, the materials, and the workflow
- Start simple, learn steadily, print often

David Swain – May 2026

What Is 3D Printing?

- Turns a digital model into a real object
- Builds parts layer by layer
- Also called additive manufacturing
- Common materials: filament, resin, nylon, and metal

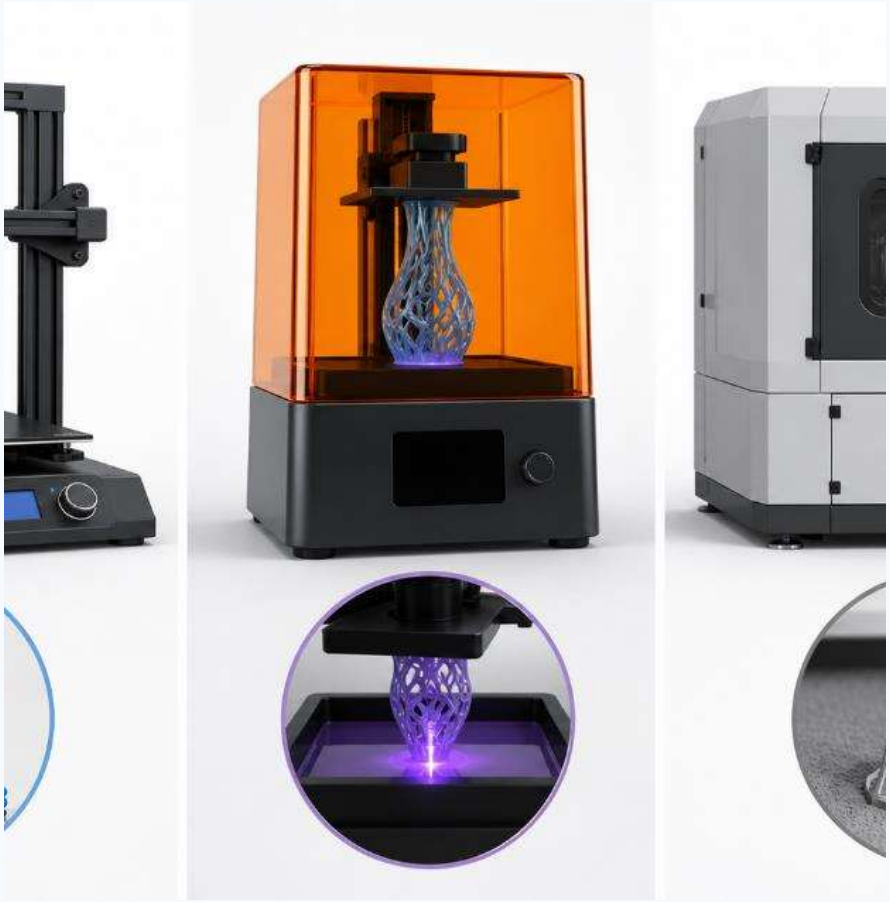


Why 3D Printing Is Useful

- Replacement parts and household fixes
- Tools, shop aids, brackets, holders, knobs, clips, and adapters
- Hobby models, prototypes, education, and small business products
- Not magic—but some days it gets suspiciously close

Main Types of 3D Printing

- FDM/FFF: melts plastic filament through a hot nozzle (Fused Deposition Modeling / Fused Filament Fabrication)
- Resin: cures liquid resin with UV light for fine detail
- Industrial: SLS and metal systems for advanced applications
- Most beginners start with FDM



What It Takes to Get Started

- A 3D printer and filament or resin. My printer is a Creality Ender-3 V3 SE - $200 CA
- Computer or tablet with slicing software. I use the free OrcaSlicer program
- Digital 3D models and basic tools
- Safe workspace and patience—the underrated accessory

Choosing a Beginner Printer

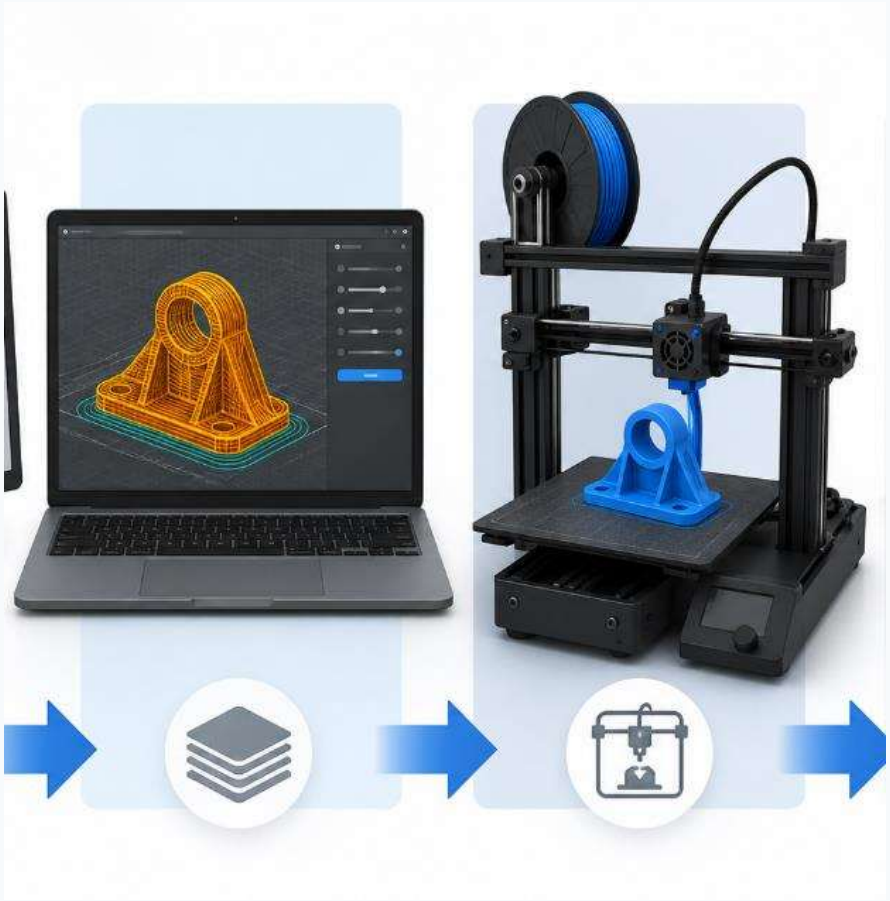
- Reliable auto bed leveling
- Easy filament loading and simple software
- Good community support and available replacement parts
- Avoid buying only for size, speed, low price, or mystery features

Basic Materials

- PLA: easiest beginner material
- PETG: stronger and more heat-resistant
- ABS/ASA: strong, but needs ventilation and often an enclosure
- TPU: flexible; useful but trickier
- Resin: high detail, plus gloves, cleanup, curing, and ventilation

The 3D Printing Workflow

- Find or design a model
- Slice it with the right settings
- Send the file to the printer
- Print, remove, clean up, test, and adjust



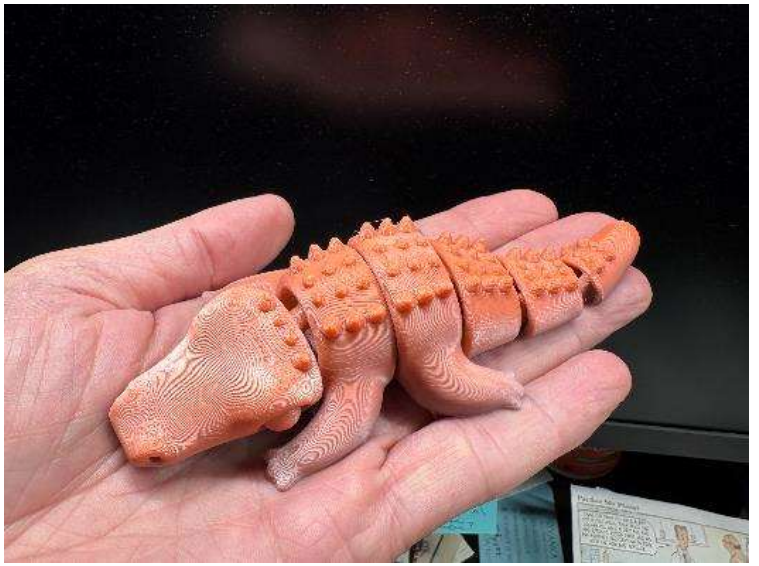
Finding Things to Print

- Model sources: Thingiverse, Printables, MakerWorld,
- Look for good photos, reviews, makes, and recent comments
- Check file format and suggested printer settings
- Beginner rule: proven models save headaches

Easter Rabbit

Custom bobbin for vintage spinning wheel

Articulated Dragon

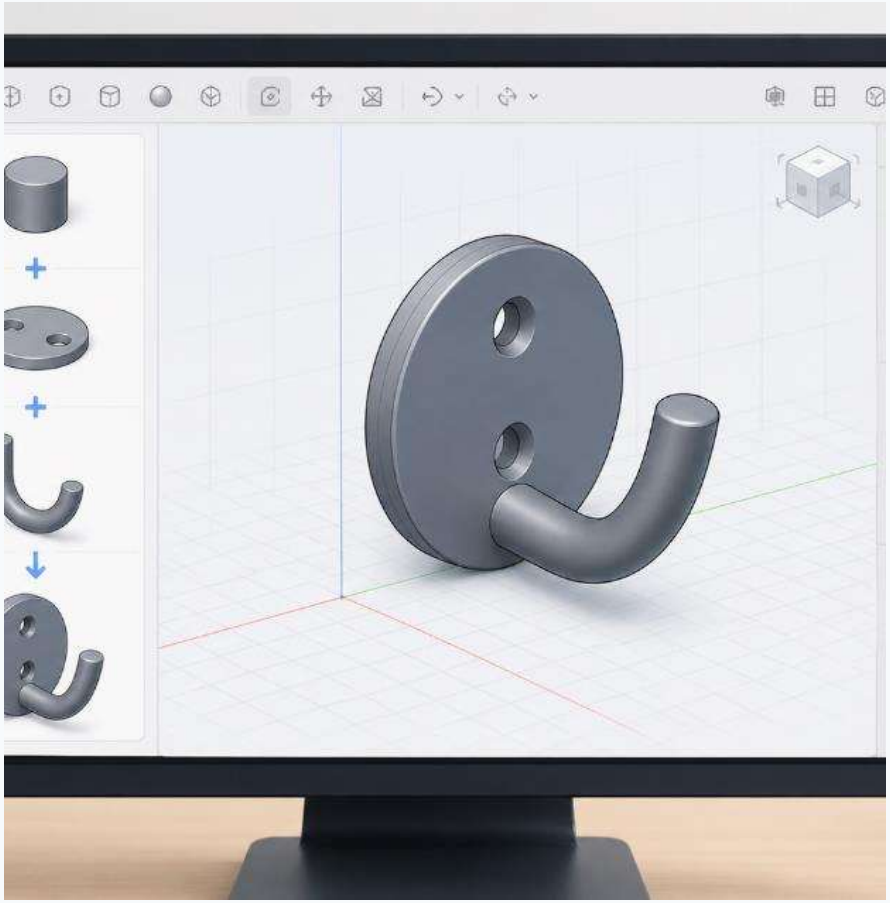


How to Make Something Yourself

- Decide what problem you are solving
- Measure, sketch, model in CAD, and export STL/3MF
- Print a test version, measure, adjust, and reprint
- Great first designs: wall hook, cable clip, drawer organizer, custom knob

Beginner Design Software

- Tinkercad: easiest starting point
- Fusion 360: powerful for mechanical parts
- FreeCAD: free and open-source
- Onshape: browser-based structured CAD
- Blender: artistic shapes and sculpture

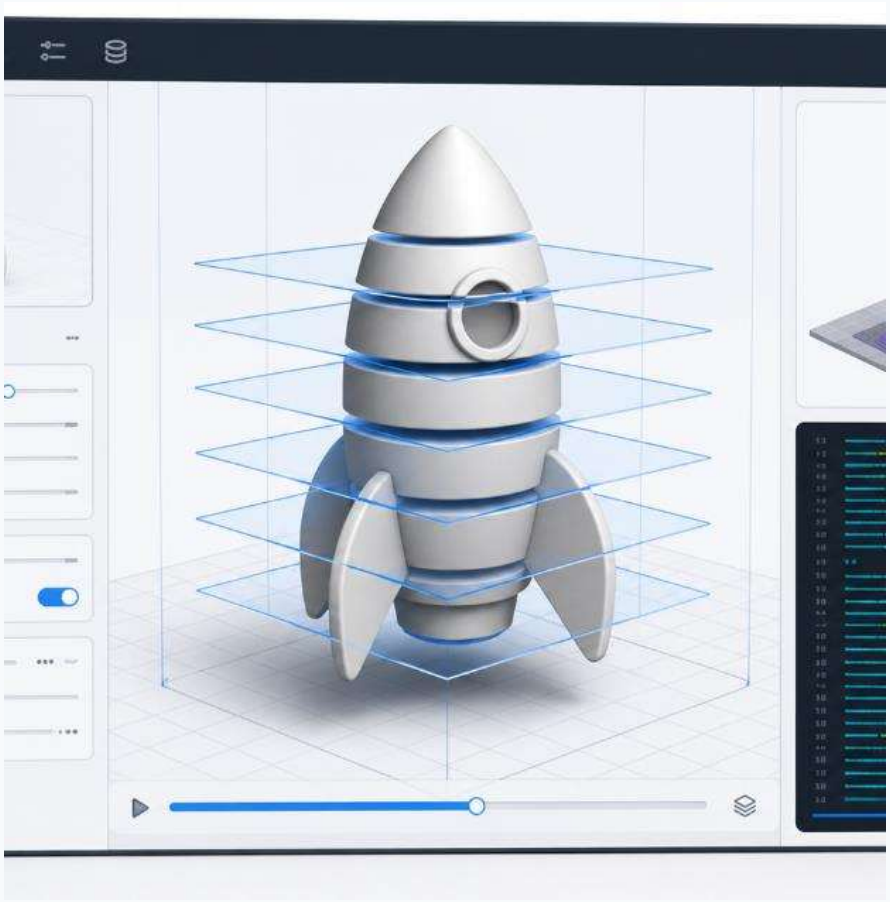


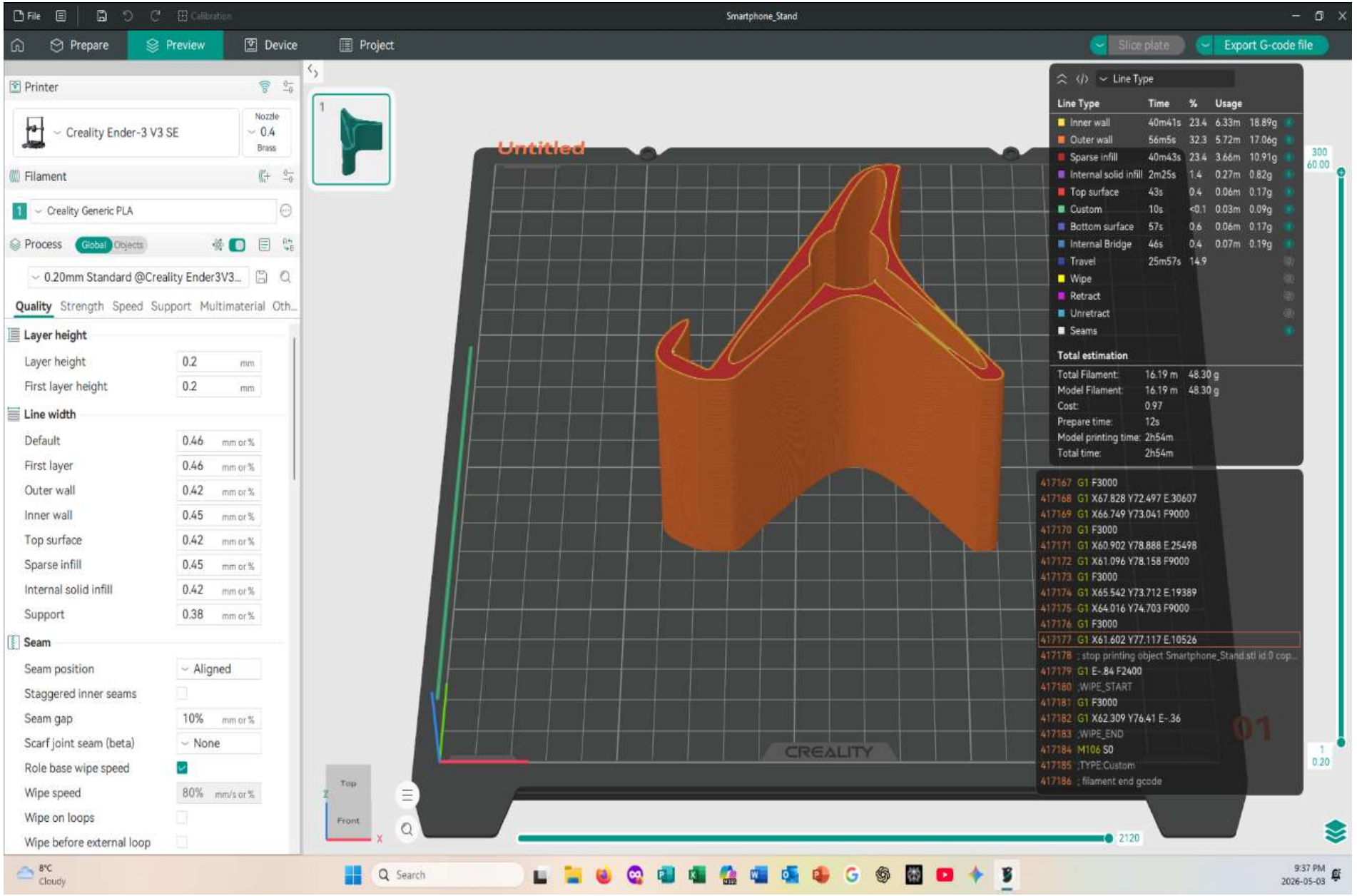
What You Need to Learn

- Printer basics, leveling, and calibration
- How filament behaves
- Slicer settings, supports, and orientation
- Common print problems and maintenance
- Basic measuring with calipers and simple CAD edits

Slicer Basics

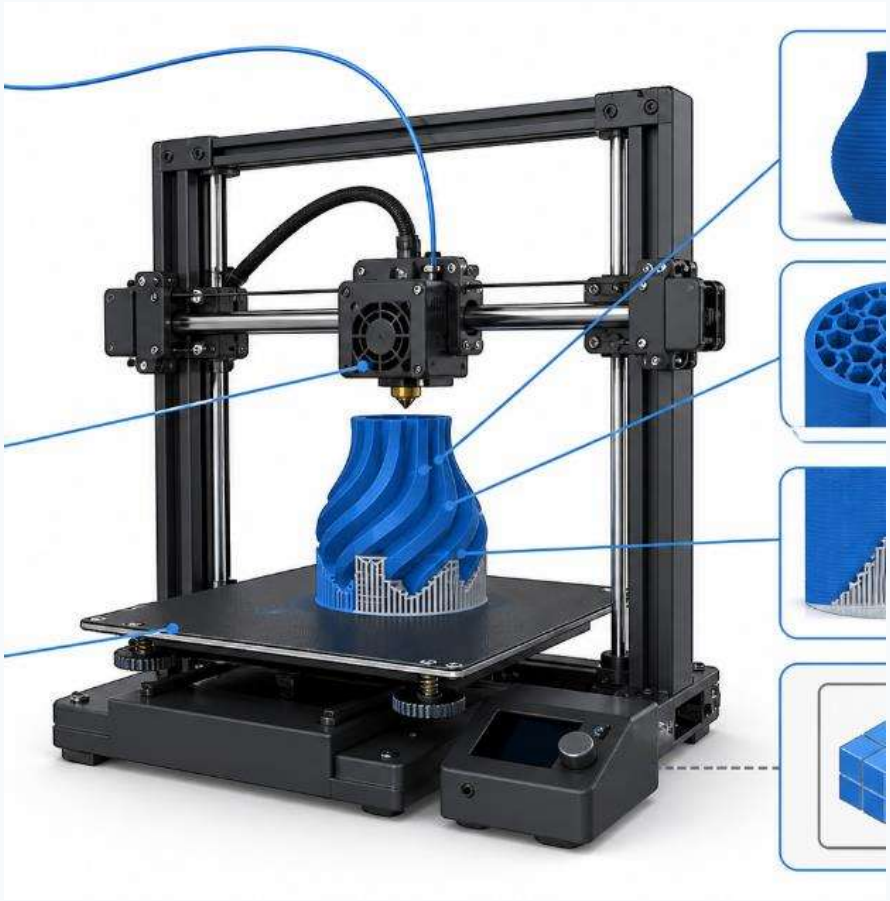
- A slicer converts a model into printer instructions; I use the free OrcaSlicer program
- Common settings: layer height, infill, walls, temperature, speed, supports
- Start with standard profiles before tweaking everything
- Let the printer company earn its keep first




File
Smartphone_Stand
Prepare
Preview
Device
Project
Slice plate
Export G-code file
Printer
Creality Ender-3 V3 SE
Nozzle 0.4 Brass
Filament
Creality Generic PLA
Process
Global Objects
0.20mm Standard @Creality Ender3V3...
Quality Strength Speed Support Multimaterial Oth...
Layer height
Layer height 0.2 mm
First layer height 0.2 mm
Line width
Default 0.46 mm or %
First layer 0.46 mm or %
Outer wall 0.42 mm or %
Inner wall 0.45 mm or %
Top surface 0.42 mm or %
Sparse infill 0.45 mm or %
Internal solid infill 0.42 mm or %
Support 0.38 mm or %
Seam
Seam position Aligned
Staggered inner seams
Seam gap 10% mm or %
Scarf joint seam (beta) None
Role base wipe speed
Wipe speed 80% mm/s or %
Wipe on loops
Wipe before external loop
Untitled
CREALITY
Line Type
Line Type Time % Usage
Inner wall 40m41s 23.4 6.33m 18.89g
Outer wall 56m5s 32.3 5.72m 17.06g
Sparse infill 40m43s 23.4 3.66m 10.91g
Internal solid infill 2m25s 1.4 0.27m 0.82g
Top surface 43s 0.4 0.06m 0.17g
Custom 10s <0.1 0.03m 0.09g
Bottom surface 57s 0.6 0.06m 0.17g
Internal Bridge 46s 0.4 0.07m 0.19g
Travel 25m57s 14.9
Wipe
Retract
Unretract
Seams
Total estimation
Total Filament: 16.19 m 48.30 g
Model Filament: 16.19 m 48.30 g
Cost: 0.97
Prepare time: 12s
Model printing time: 2h54m
Total time: 2h54m
417167 G1 F3000
417168 G1 X67.828 Y72.497 E.30607
417169 G1 X66.749 Y73.041 F9000
417170 G1 F3000
417171 G1 X60.902 Y78.888 E.25498
417172 G1 X61.096 Y78.158 F9000
417173 G1 F3000
417174 G1 X65.542 Y73.712 E.19389
417175 G1 X64.016 Y74.703 F9000
417176 G1 F3000
417177 G1 X61.602 Y77.117 E.10526
417178 ; stop printing object Smartphone_Stand.stl id:0 cop...
417179 G1 E-.84 F2400
417180 ;WIPE_START
417181 G1 F3000
417182 G1 X62.309 Y76.41 E-.36
417183 ;WIPE_END
417184 M106 S0
417185 ;TYPE:Custom
417186 ; filament end gcode
300
60.00
1
0.20
2120
Top
Front
8°C
Cloudy
Search
9:37 PM
2026-05-03

Important Printing Terms

- STL/3MF: common model file formats
- G-code: printer instruction file
- Layer height: thickness of each layer
- Infill: internal structure
- Supports: temporary structures for overhangs
- Build plate, nozzle, extruder, and bed adhesion



Orientation and Supports

- Part orientation affects strength, finish, and print time
- Overhangs may need supports
- Flat surfaces usually print easier
- Tall skinny parts can wobble
- The best orientation is often a compromise

Print Quality Basics

- Dry material, correct temperature, clean build plate, and proper leveling matter
- Reasonable speed and cooling improve results
- Common issues: warping, stringing, layer shifting, poor adhesion, under-extrusion, blobs

Safety Basics

- Use a stable surface and respect hot nozzles and beds
- Ventilate, especially with ABS/ASA
- Avoid leaving printers unattended until you understand what you’re doing

Basic Tools and Accessories

- Digital calipers, scraper, flush cutters, pliers
- Deburring tool or hobby knife
- Isopropyl alcohol and small brushes
- Filament storage bags or dry box
- Spare nozzles and bed adhesive if needed

First Projects to Try

- Calibration cube and Benchy boat
- Cable clips, keychains, phone stand, wall hook
- Drawer divider, simple bracket, knob, handle, storage tray
- Avoid huge prints, delicate miniatures, moving assemblies, TPU, and high-temp materials at first

How to Improve Over Time

- Print existing models first
- Learn slicer settings gradually
- Make small adjustments and track what changed
- Learn basic CAD and design simple parts
- Failed prints are tuition—often paid in plastic spaghetti

Common Beginner Mistakes

- Changing too many settings at once
- Printing too fast or skipping bed cleaning
- Using wet filament
- Buying difficult materials too soon
- Ignoring measurement and plastic shrink/flex
- Expecting perfection on the first try

Example Project: Cable Holder

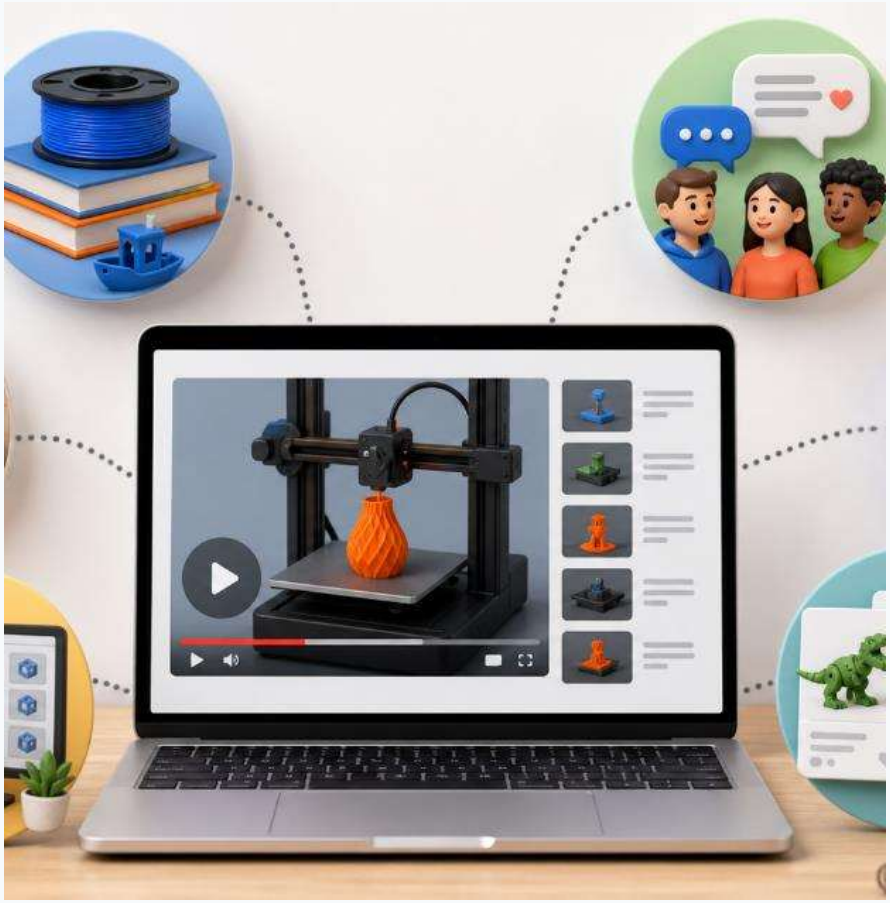
- Problem: messy charging cables
- Measure cable diameter and sketch a holder
- Design in Tinkercad or CAD, then export STL/3MF
- Slice with a PLA profile, print, test fit, adjust, and reprint

What Success Looks Like

- You understand the basic workflow
- You can print simple models reliably
- You can fix basic problems
- You learn one design tool
- You build confidence through repetition

Resources for Learning

- Printer manufacturer tutorials
- YouTube beginner channels
- Reddit communities and 3D printing forums
- Printables and MakerWorld model pages
- Local maker spaces such as libraries

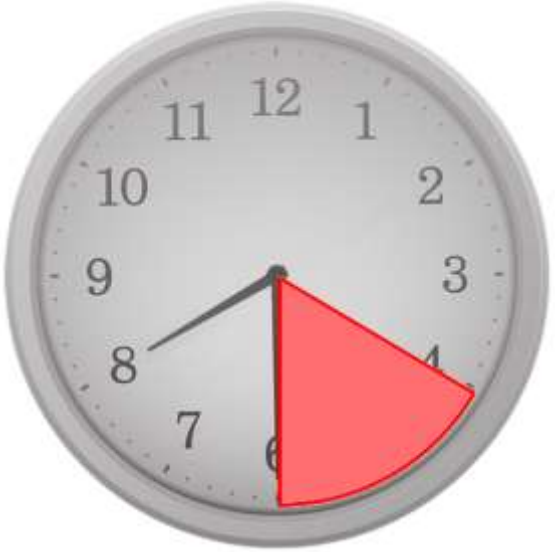


Start Simple. Learn Slowly. Print Often.

3D printing combines design, machine setup, materials, and problem-solving

Once the basics click, useful objects can come straight from your own ideas

That is still one of the coolest tricks a home machine can do



Any other:

Questions

Comments

Shares?

OPCUG

Ottawa Public Library / Bibliothèque publique d'Ottawa

Users helping users for over 40 years

Fun with fonts - the art and science of typography
Chris Taylor
Rosemount, Thursday May 21, 2026 at 6:00pm

Armchair travel: Newfoundland
Lynda Buske
Sunnyside, Friday May 22, 2026 at 1:30pm

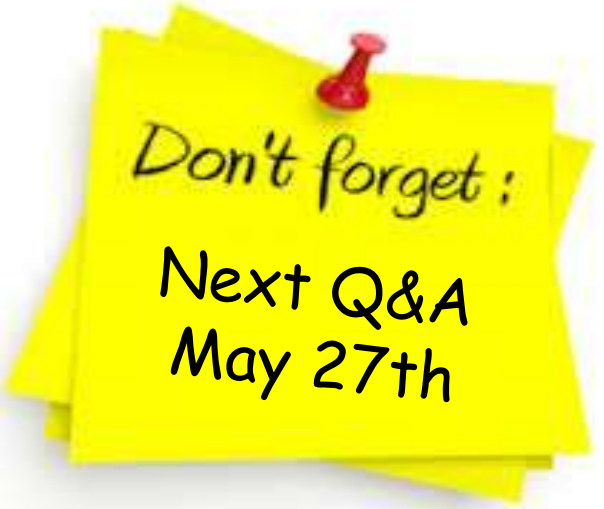
The Ins and Outs of Email
Chris Taylor
Elmvale Acres, Saturday May 23, 2026 at 2:00pm

https://booking.bibliootawalibrary.ca/en/program?text=ottawa+pc

Britannia Park Trolley/Picnic Station

June 10, 2026

Register by E-mail to: pizzaparty2026@opcug.ca
Details: https://opcug.ca/events/annual-pizza-night/



Send your questions, answers, and topics you wish to share to:

SuggestionBox@opcug.ca