

LET'S 3D PRINT SOME THINGS!!!



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*3D glasses not required

WELCOME TO 3D PRINTING & SCANNING!

- **What Kinds of Things Can You Print?**
- **Finding a Thing to Print**
- **Getting the Thing Ready**
- **Printing the Thing**
- **Scanning Items to 3D Print**

WHAT KINDS OF THINGS CAN YOU PRINT?

Anything you want!

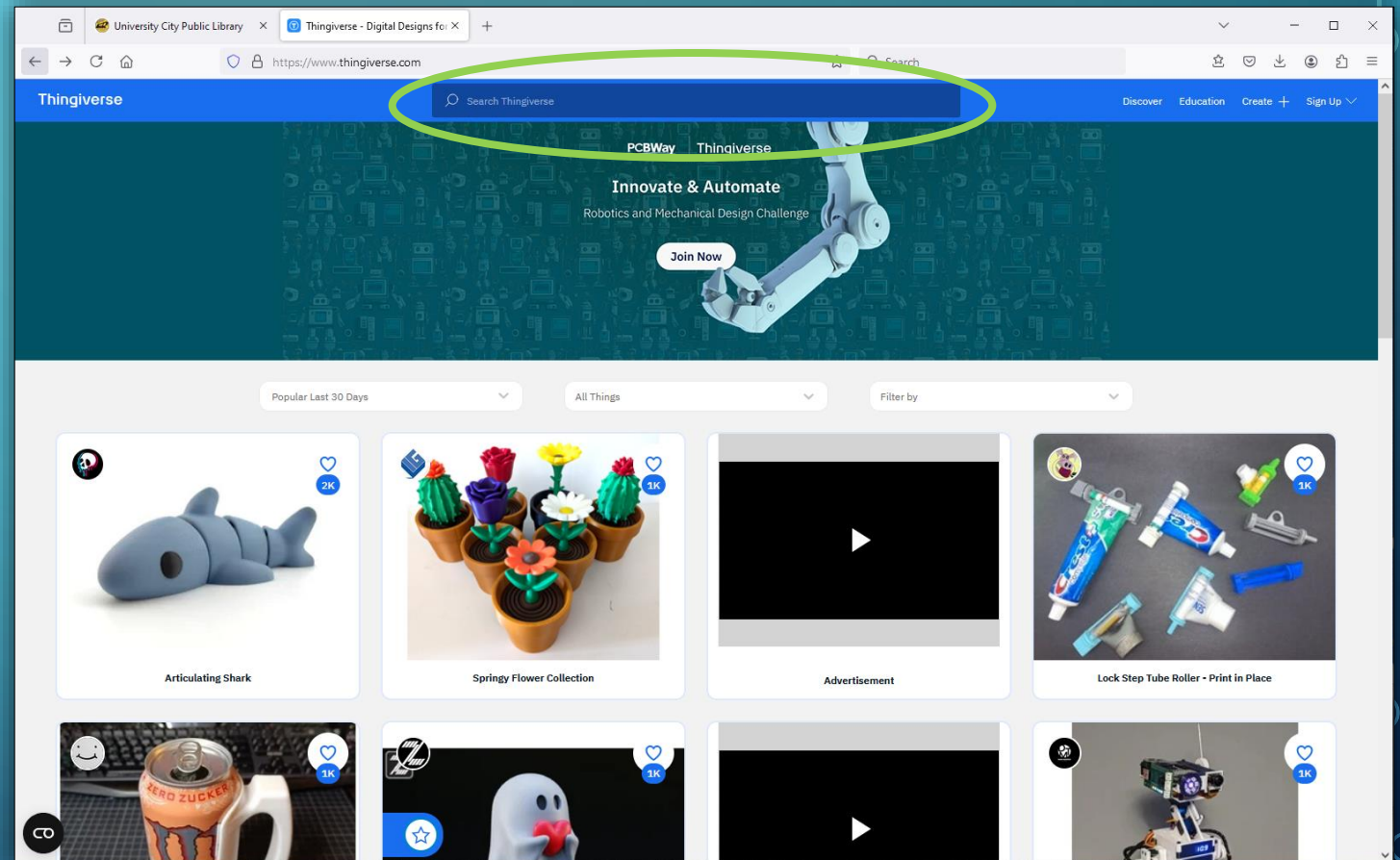
...with a few restrictions:

- It can't be bigger than 8x8 inches.
- It's going to be plastic.
- And only in one color.
 - Want to know what color? Just ask!



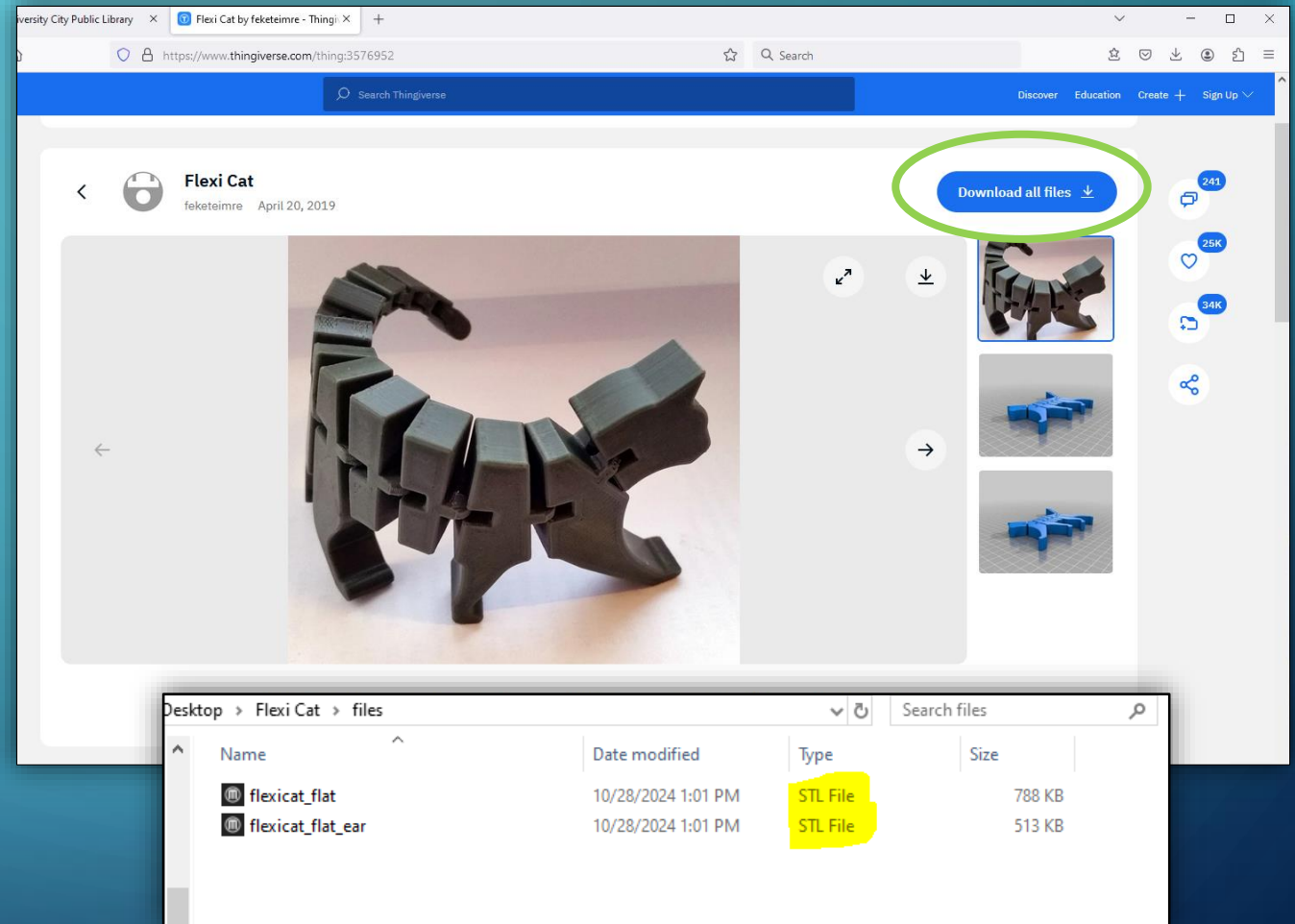
FINDING A THING TO PRINT

- Many places to find things to print
- We recommend Thingiverse (linked on all public access computers at UCPL)



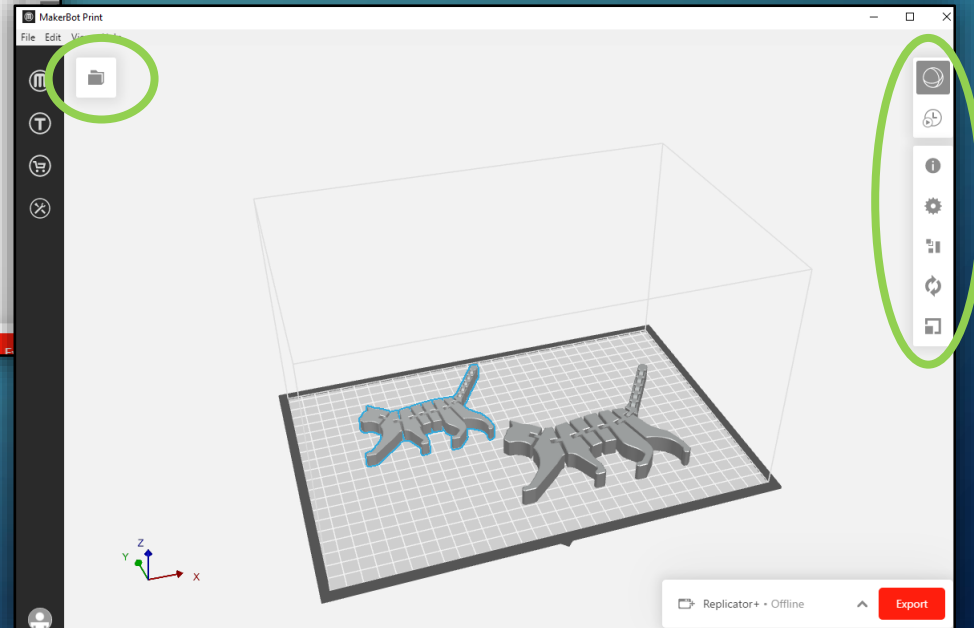
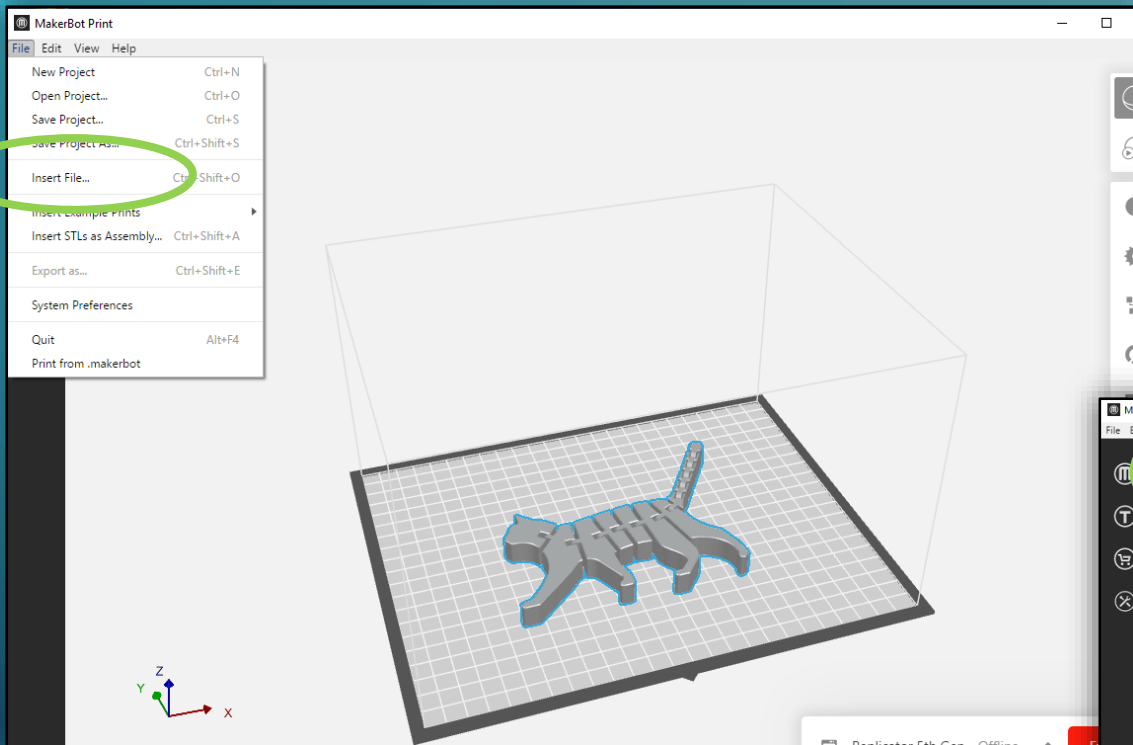
FINDING A THING TO PRINT

- Once you find what you want, click “download all files”
- ZIP folder will download, but files must be extracted to open in Makerbot Print

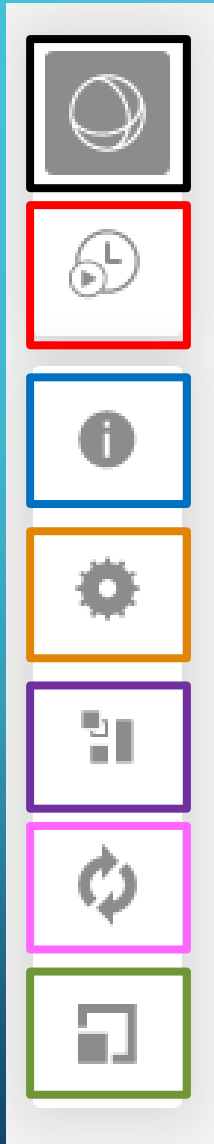


GETTING THE THING READY TO PRINT

- **MakerBot Print Software**
- **Software is installed on all public computers at UCPL**

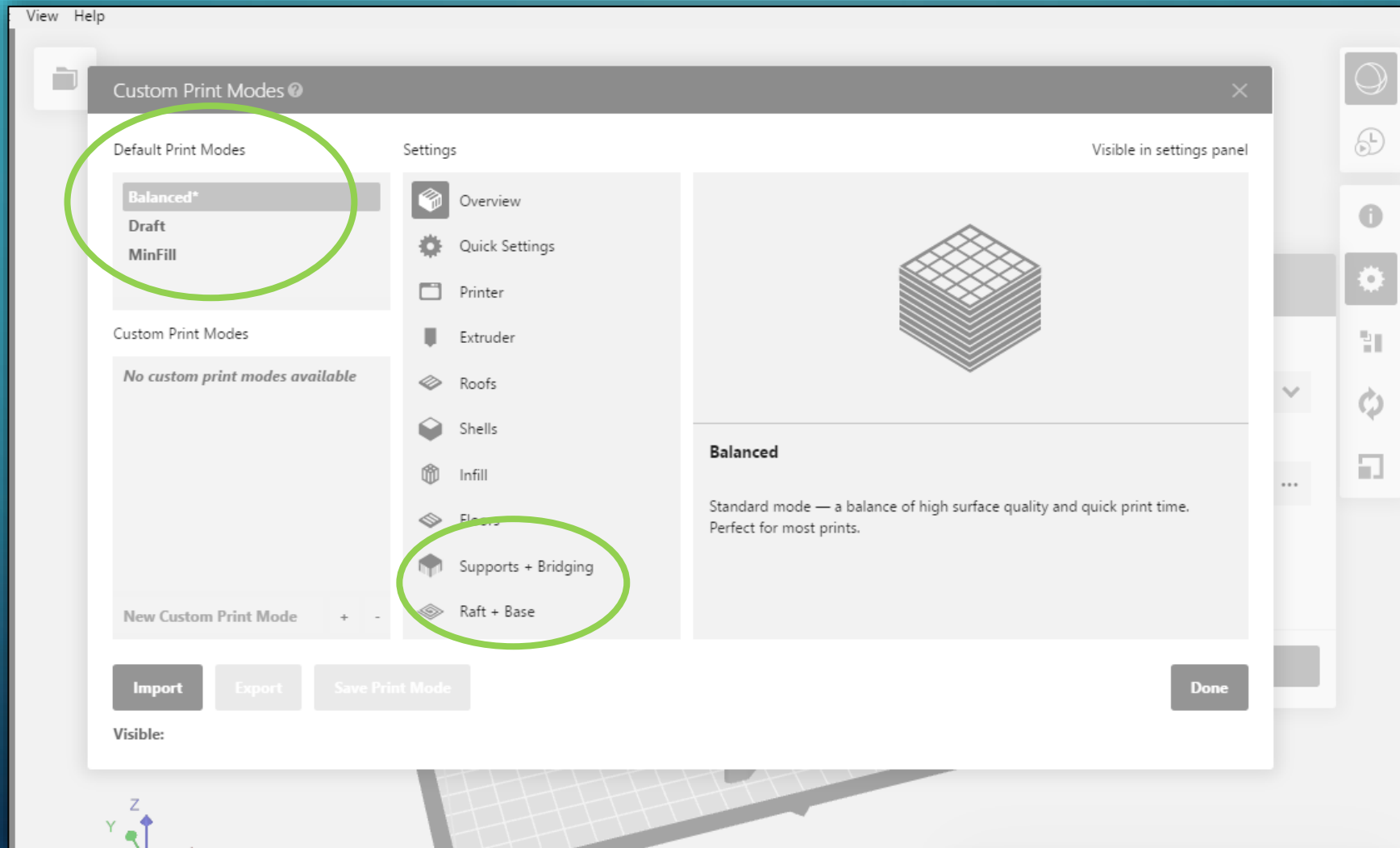


A NOTE ABOUT THE ICONS



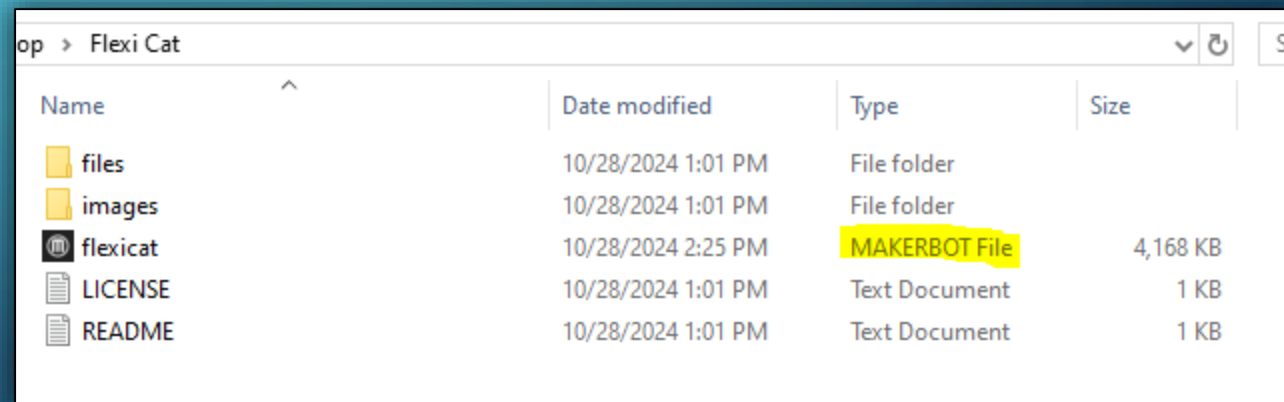
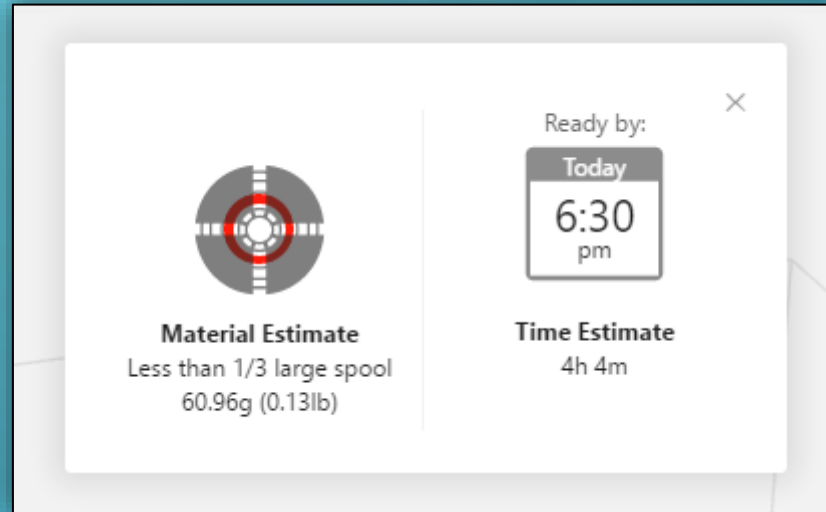
- **Model View is Active** (always says this)
- **Estimates & Print Preview** (time, cost)
- **Model Info** (units of measurement)
- **Print settings** (extruder type, supports, base layer/raft)
- **Arrange** (good for putting multiple things on build plate)
- **Orient** (stand up or lay down on build plate)
- **Scale** (make bigger or smaller)

PRINT SETTINGS IN DETAIL

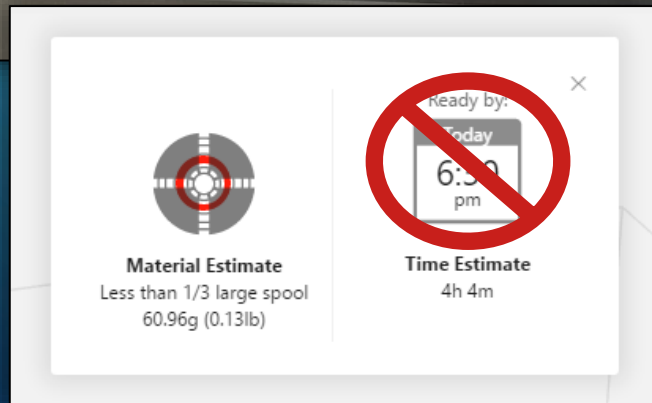
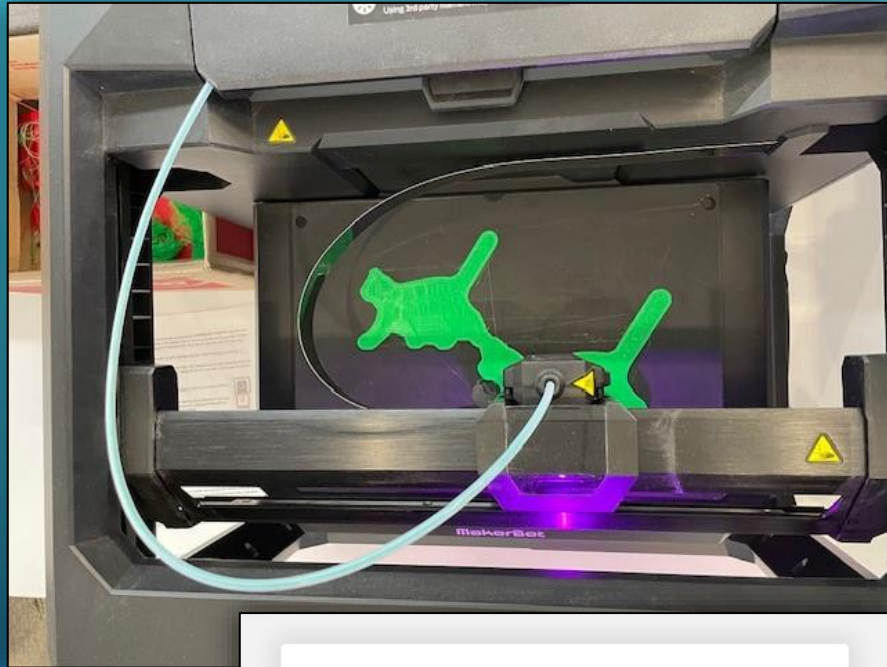


SAVING THE THING'S FILES

- In **MakerBot Print**, make sure it's configured for **MakerBot Replicator+** using a **SmartExtruder+**
- Export print file and save to flash drive.
- File must be **MAKERBOT** filetype.
- Changes cannot be made to **MAKERBOT** files.



PRINTING THE THING



Things to keep in mind as you print:

- You can only print in one color.
- It takes a **LONG TIME**. If the estimated time is too long, we won't be able to print it.
- Disregard the “ready by” time on the print preview and export estimates. Those estimates don't reflect real-time complications (other prints, open hours).

3D SCANNING AT UCPL



WHAT CAN YOU SCAN?

Size restrictions:

- Minimum: 1.2 x 1.2 x 1.2 inches
- Maximum: 7.8 x 7.8 x 7.8 inches

What you **CAN'T** scan

- Anything fuzzy
- Anything moving or vibrating
- Anything highly reflective
- Anything with lots of deep holes



AFTER YOU SCAN

Use 3D editing software to finalize the models for printing

- Blender or Tinkercad
 - Hint: Use LinkedIn Learning for tutorials



LinkedIn Learning

- Finish with MakerBot Print to print at UCPL

ANY QUESTIONS?

