Product Design

OIDD 415/515
MEAM 415
IPD 515

- Design Fair Info
- Alpha Prototype Pitch
- Designing a Logo

Coming up:

- **NO CLASS WEEK OF THANKSGIVING (Nov 22/23)**
- Prof. Ashley will hold **ZOOM OFFICE HOURS**
  - Monday 3:30 - 4:30 PM
  - Tuesday 12 - 1 PM
  - No TA office hours Thanksgiving week

Upcoming Schedule

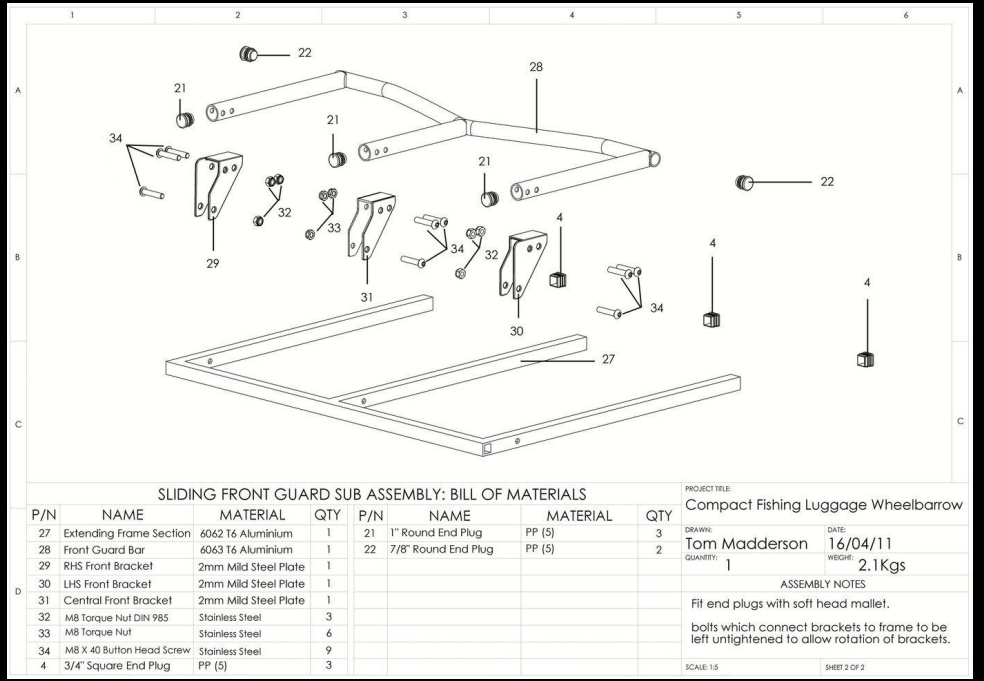
- Nov 22/23 - no class; Zoom office hours with Prof. Ashley
- Nov 29/30 - in class work time, each team meets with Prof. Ashley - last class before Design Fair
- TUESDAY December 7 - Design Fair, 6:30- 8:30 PM (prepare to be there 5:30 - 9:30 PM)

- Keep your receipts for reimbursement. Penn does not reimburse sales tax!

Due Nov 30

- Team Assembly Drawing/BOM
- Team Cost Model (preliminary)
- 10 Product Names Assignment (Individual)
- Lecture: Entrepreneurial Product Development

- You should be working on your Design Fair materials over Thanksgiving break!



SLIDING FRONT GUARD SUB ASSEMBLY: BILL OF MATERIALS

P/N	NAME	MATERIAL	QTY	P/N	NAME	MATERIAL	QTY
27	Extending Frame Section	6062 T6 Aluminium	1	21	1" Round End Plug	PP (5)	3
28	Front Guard Bar	6063 T6 Aluminium	1	22	7/8" Round End Plug	PP (5)	2
29	RHS Front Bracket	2mm Mild Steel Plate	1				
30	LHS Front Bracket	2mm Mild Steel Plate	1				
31	Central Front Bracket	2mm Mild Steel Plate	1				
32	M8 Torque Nut DIN 985	Stainless Steel	3				
33	M8 Torque Nut	Stainless Steel	6				
34	M8 X 40 Button Head Screw	Stainless Steel	9				
4	3/4" Square End Plug	PP (5)	3				

PROJECT TITLE: Compact Fishing Luggage Wheelbarrow

DRAWN: Tom Madderson

DATE: 16/04/11

QUANTITY: 1

WEIGHT: 2.1Kgs

ASSEMBLY NOTES

Fit end plugs with soft head mallet.

bolts which connect brackets to frame to be left untightened to allow rotation of brackets.

SCALE: 1:5

SHEET 2 OF 2

Sample Assembly Drawing with Bill of Materials (BOM) - yours can be hand drawn

Design Fair

- Tuesday December 7
  - Total time 5:30 - 9:30 PM (setup and breakdown)
  - Event time 6:30 - 8:30 PM
- Each team will have a 30” table and easel to present their product to potential customers (invite your friends!)
  - Easel has no back, posters must be self-supporting (mounted on foamcore using a sprayable adhesive, purchasable at Plaza)
  - Campus Copy Center will mount your poster on foamcore for a fee

You will provide:

- 24 x 36” poster mounted on foamcore
- 5 x 7” small version of poster for voting box
- Sell sheets

Printouts for Design Fair

24” x 36”

- Product Name
- Price
- Picture/Rendering
- Attributes/Benefits/ How it works
- Portrait or Landscape
- **Less is More!**

Poster, Mounted on Foam Core

5” x 7”

- Small version of poster
- Portrait

For Voting Box
(not mounted)

8.5” x 11” sheet cut in 4

Sell Sheets
(to give away to shoppers)

- www.Canva.com (great online tool for making posters)
- High quality poster printing available at Vitale Digital Media Lab (Van Pelt, set up an appointment online) or Campus Shipping Center

Alpha Prototype Pitch

- Two minutes to present, two minutes for questions
- Voting for your top FOUR products you think are the most well rounded
    - Quality of prototype
    - Quality of pitch
    - Would you buy it?

Alpha Prototype Pitch

https://bit.ly/3Dqe39u

Vote for the top four ideas you think are great products. Don’t vote for your own project!

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- Alpha Prototype Pitch
- Design Fair
- **Designing a Logo**

Why Have a Logo?

- Helps show consumer your brand identity

Why Have a Logo?

- Distinguish yourself from the competition

Why Have a Logo?

- Create brand recognition

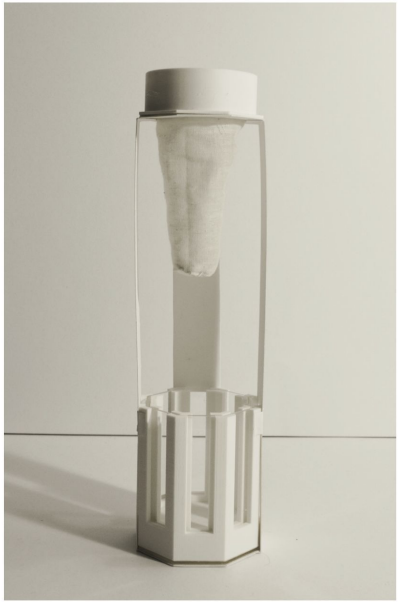
Logo Examples

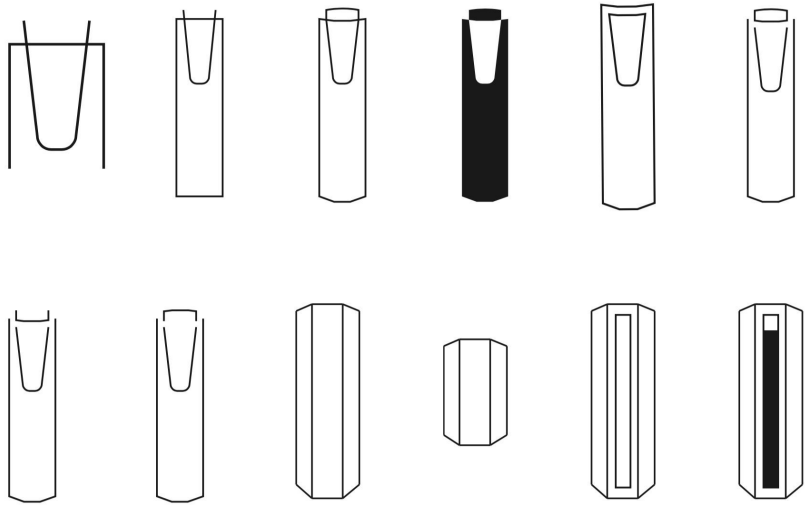
- Iconic visual elements + font choice, juxtaposted

Designing Your Logo

- Slight but relevant text modifications can be very effective and easy

Branding Exercise





infusera

INFUSERA

infusera

INFUSERA

infusera

infusera

1

2

INFUSERA

Coffee brewed simply, anywhere, anytime.

$40

Infusera is a bottle that brews coffee on-the-go.

Features include:

- Double walled glass bottle for effective insulation
- Infusera's cloth filter is invertible for easy cleaning
- Octagonal silicone sleeve provides better grip and ergonomic feel

HOW TO USE & INFUSE:

1 Insert Grounds

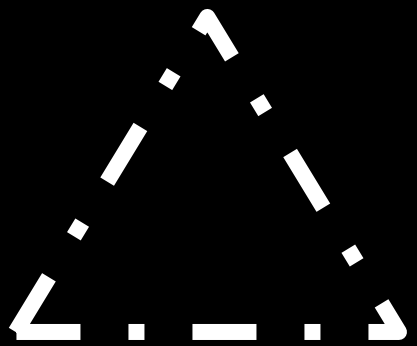
2 Pour Water

3 Steep on the Go

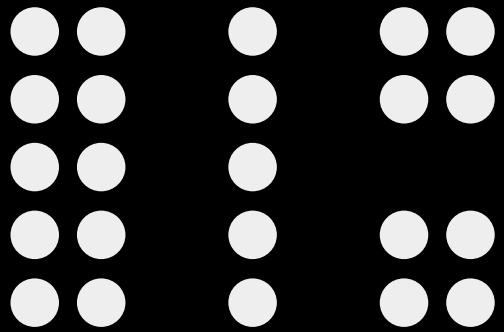
4 Invert & Store Filter

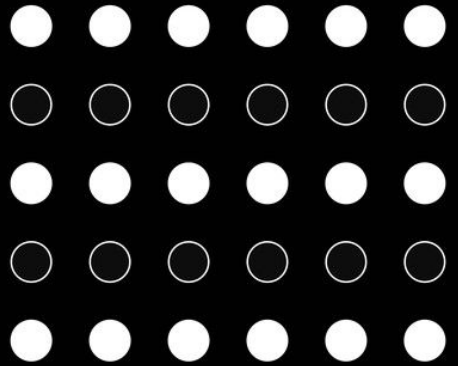
5 Enjoy!

Gestalt Principles: Closure, we prefer completeness

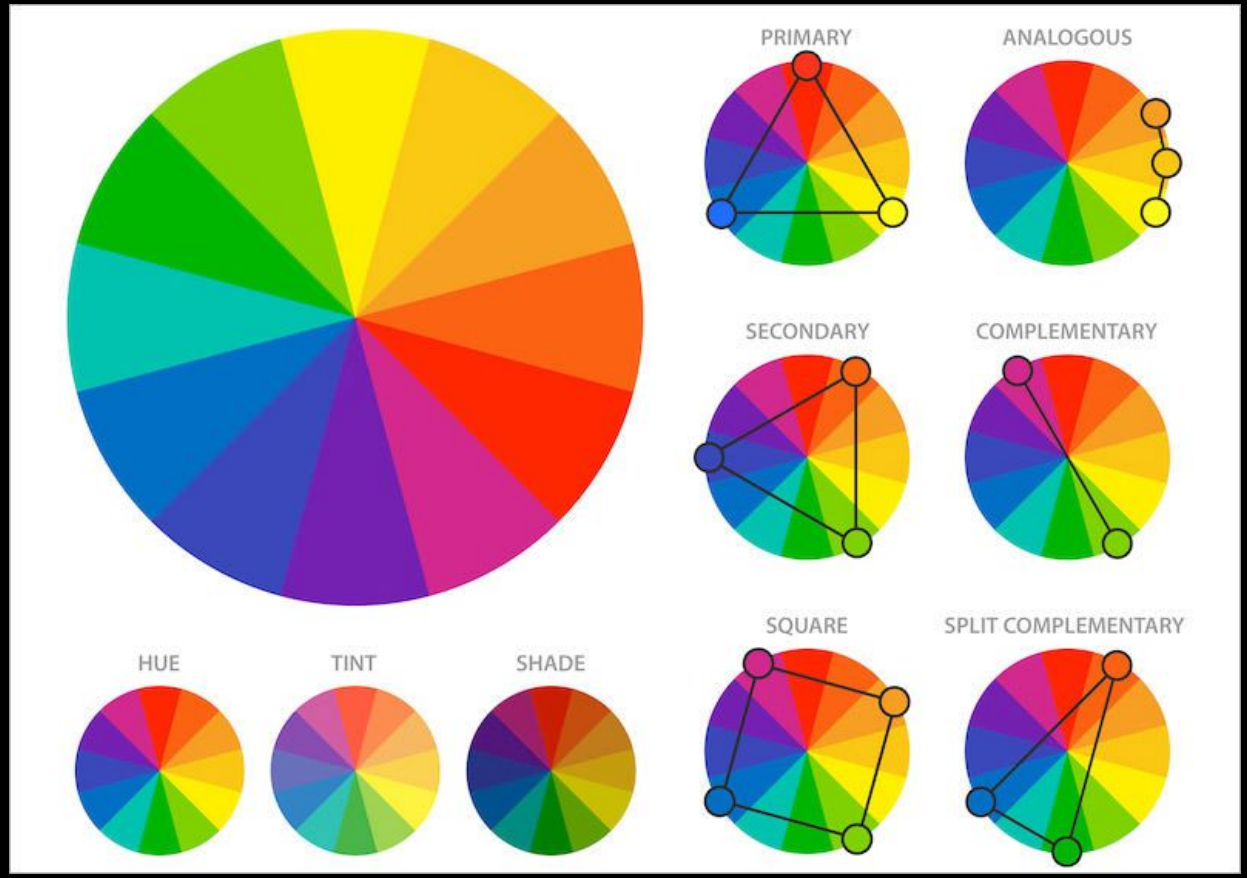


Gestalt Principles: Proximity, Common Fate, Similarity





Color Combinations



Free fonts and icons

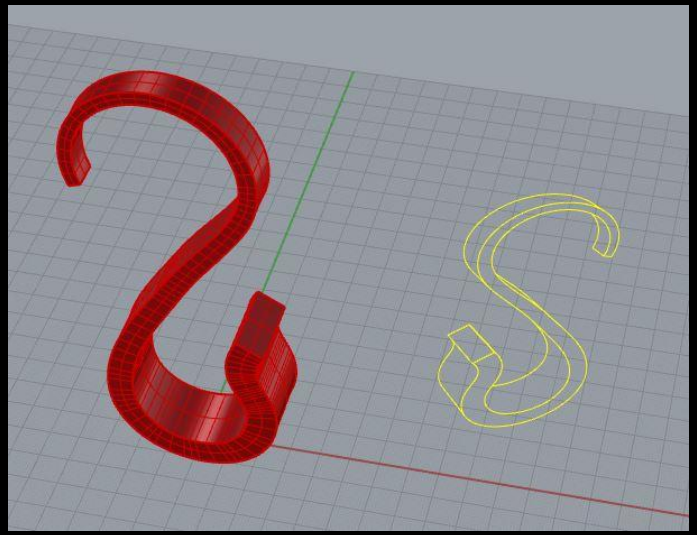
- DaFont
- Font Squirrel
- The Noun Project (icons)
- Flat Icon (icons)

Graphic Design Resources

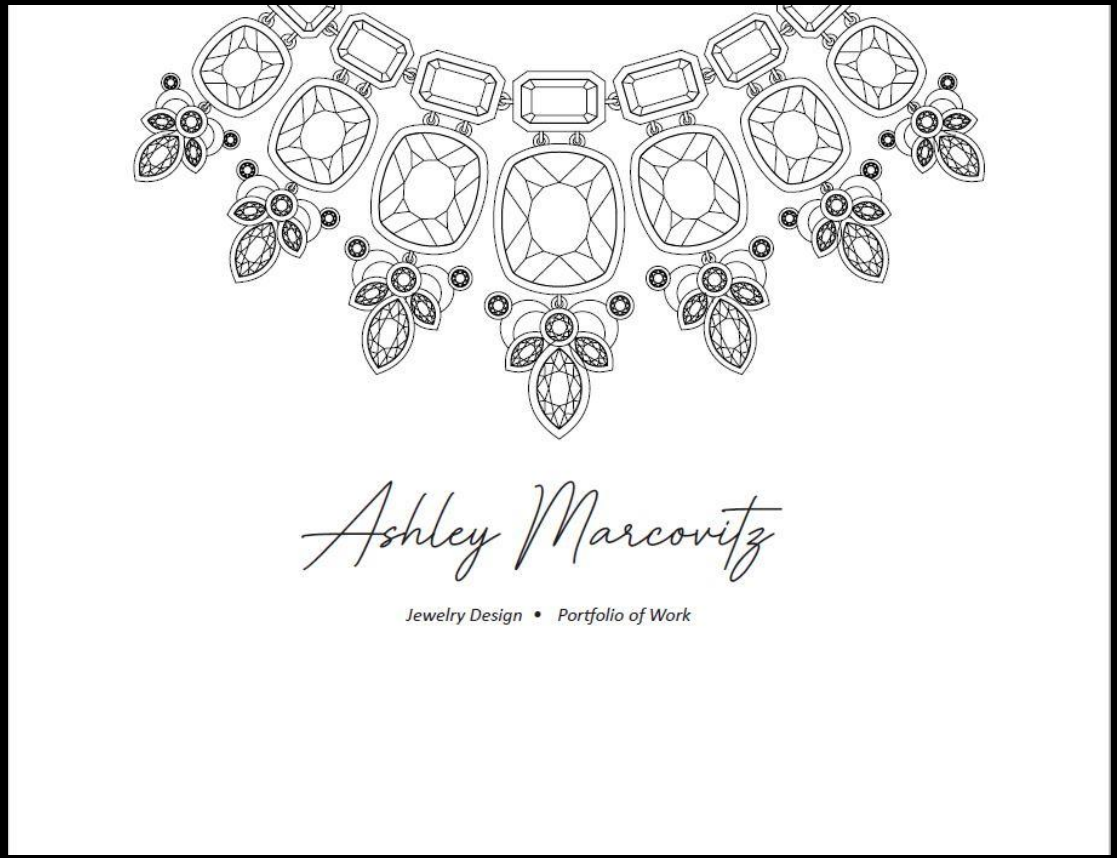
- Canva
- Illustrator
  - Image trace and live paint tools
- Make2D tool in Rhino
  - Do the command as if setting up the composition of a photo
  - Clean up by deleting unnecessary curves
  - Export as .ai file (command: Export)

Rhino - Make2D

- Takes a 2D “picture” of your work in any view or angle you choose - can export as .ai to use in graphic design

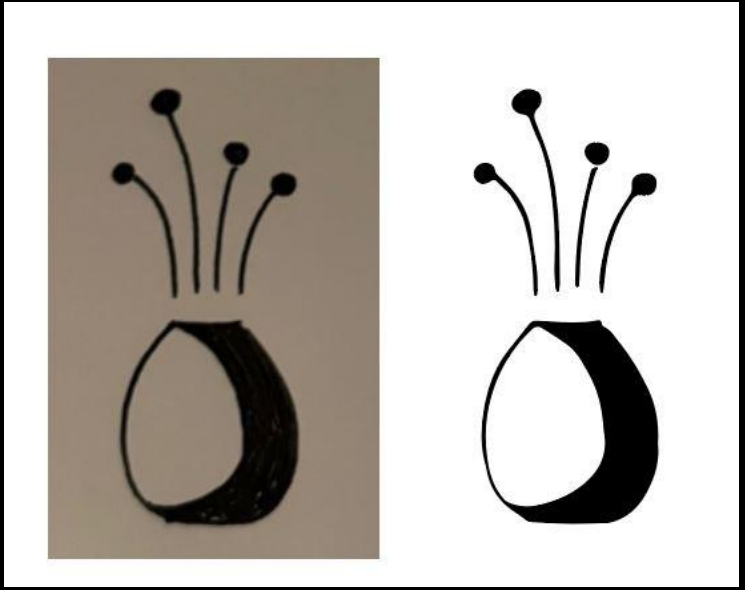


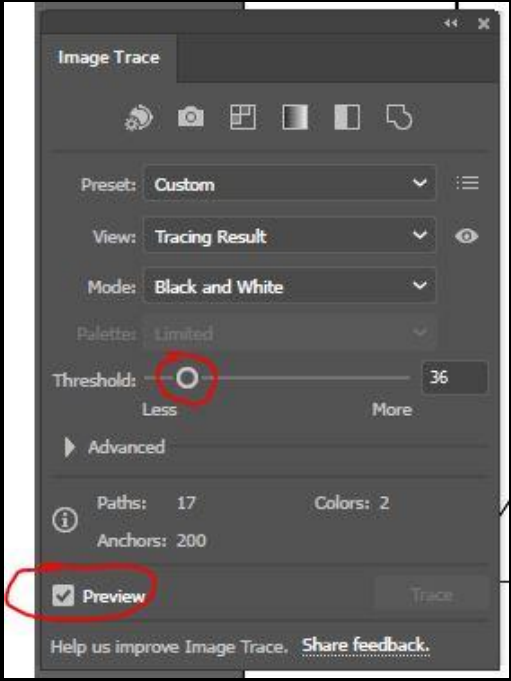
Rhino - Make2D



Illustrator - Image Trace

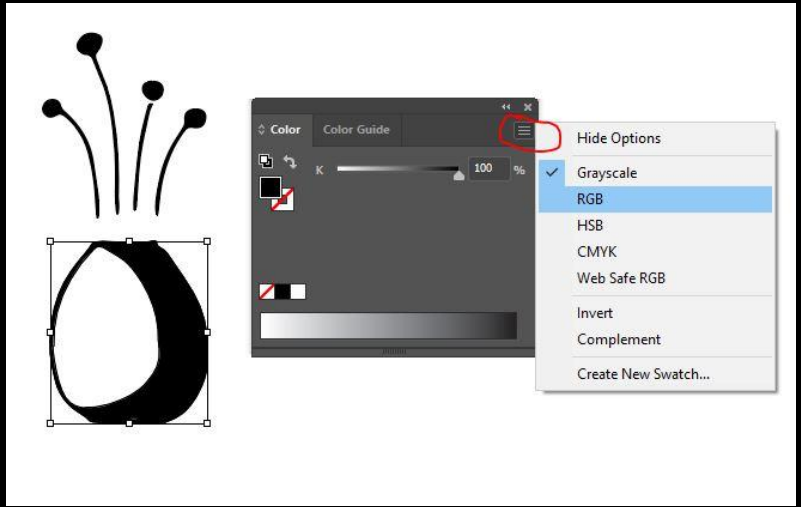
- Image trace - converts an image to a vector for editing in Illustrator
- File -> Place to choose your image
- Window -> Image Trace





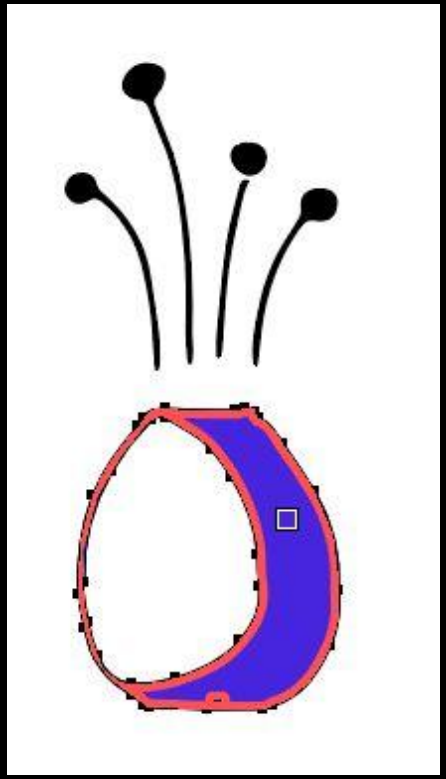
Illustrator - Live Paint

- Live Paint - allows you to easily paint vectors
- If working from image trace, you'll need to follow these steps before you can live paint
  - After image trace, click on image, then go Object -> Expand
  - Right click image, then Ungroup
  - Click individual elements and change mode to RGB (otherwise you are stuck in grayscale mode)



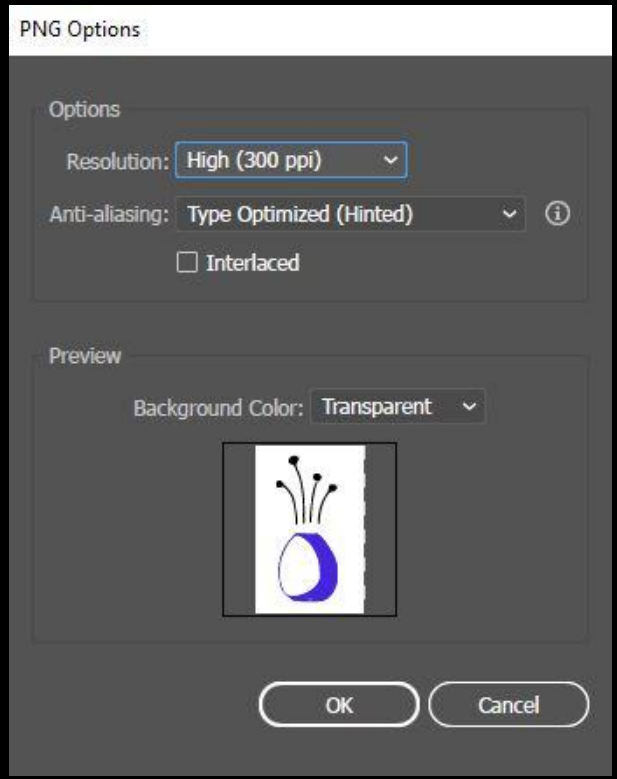
Illustrator - Live Paint

- Choose Live Paint Bucket Icon from right menu, then change the fill color to desired color
- Hover over the area you want to paint until it is outlined in red, then click to paint



Illustrator - Exporting

- When finished, export your work as a **.png** if you want a transparent background to work with in Canva
    - File -> Export -> ExportAs
- Change settings to 300 ppi (this will be nice and crisp for your poster)
- Choose TRANSPARENT background color



Large Format Printing

- Vitale Digital Media Lab @ Van Pelt Library - printing only (posters and sell sheets)
- Campus Copy Center - for an extra fee, they will mount your poster on foam core

This is the style of easel. Unsupported posters will flop!

spongeSHIELD

$9.99

Scraper for small crevices or large pans
Holds sponge upright for easy acessibility
Minimum space usage
Dries sponge quickly
Just one part, low cost

DESKLIP

$35

More Space, Fewer Spills

Clip this portable beverage and stationary holder onto tiny classroom desks to free up space and prevent spills!

www.desklip.com

TEAM 2

COINCARD

Designed to seamlessly integrate into your wallet, Coincard transforms your approach to carrying coins.

Functional design.
Three total slots, each equipped to house two quarters. Easy insertion and removal, bumpers keep coins in place.

Convenient size.
The shape and size of a credit card, Coincard slips into any standard wallet slot.

Design your wallet.
Five base colors, two finishes, endless possibilities. Make Coincard your own.