

# Future of FAB Labs Round Table



FAB Lab Director




Tim Krueger, Bluejay Design and Manufacturing / Graphics

Thursday, March 9 2023


Room D 11:30-12:30

# Merrill Area Public Schools

- Going on our 5th year
  - Started due to passing of a referendum
  - Started with one section of FAB Lab Innovations 1
  - Currently teaching 6 sections of 1, 2 sections of 2, and looking into a 3rd level (Mark Rober Studio.com) (all semester classes)
  - Advisory board
  - Staff training
  - Open to the community
  - Business nights (Reindl Printing)
  - VFW
  - Community projects
  - Student based enterprise (Bluejay Design and Manufacturing)
- 

# Equipment

## FAB Lab I

- 7 - 3d printers (5-Dremel 3d-45, 1-Dremel 3d-40, 1 dual head Tenlog)
  - 2 - Roland GS-24 Vinyl Cutters
  - 2 - X-Carve CNC Routers (1000x1000) (Z-axis/belt upgrade kit)
  - 3 - Universal VLS6-60 Lasers (18x32)
  - 1 - Roland SG - 54 Large Format Printer
- 


# FAB Lab Innovations 1 Curriculum

- Free easy online software
  - Tinkercad, Easel, Adobe Illustrator, Roland CutStudio
- One assignment per piece of equipment to learn the “how.”
- Final project options
  - Make whatever they want using a minimum of 3 pieces of technology on that one project
  - Invent / prototype / improve something
- NC3 Industry Certs for 3d printing




# Equipment

## FAB Lab II

- Xante X-16 UV Printer (18x24x7.75 CMYK WW)
  - 3 - DoBot Magician Robotic Arms with conveyor belt
  - EinScan Pro 3D Scanner
  - 4x4 JobMaster Plasma Cutter
  - Tormach PCNC 440 Mill with auto tool changer
  - Tormach 15L Slant Pro Lathe
  - Wazer Waterjet
  - Micro Bits
- 

# FAB Lab Innovations II Curriculum

- One project on each piece of equipment to learn the “how.”
    - Rotations of groups
  - Final project is self guided related to something they are interested in learning more on or something that will help them upon graduation
    - Ben story (squid industries)
  - NC3 Industry Certification Snap-On DMM
  - Work on community jobs
- 

# Discussion Points

- Open community nights
- Core area engagement
- Projects that work well with students
- Equipment pros and cons
- Budgets
- Student based enterprise / billing
- Programs / licenses
- Competition based curriculum



# Contact Information

[Joshua.zalewski@mapsedu.org](mailto:Joshua.zalewski@mapsedu.org)

1201 N Sales Street

Merrill, Wi 54452

715-536-4594 x 18143

