

# Makerspace

What's in there?

Currently we have:

2 laser cutters

A large format vinyl cutting machine

4 small format cutting machines

2 die cutting machine

2 3D printers

Button Making Machine

2 Heat presses (one large and one small)

Sublimation printer

4 sewing machines

1 fabric pattern projector

2 airbrushes with 1 airbrushing booth

3 presenter cameras

1 photography light box

1 large format inkjet printer for paper crafting

Plus an assortment of handheld tools and crafting supplies

What exactly is all that stuff and what can it do?

**Laser Cutters** can cut and etch into materials up to ¼ inch thick with an actual laser! Materials include wood, paper, vinyl, rubber, EVA foam (like the stuff exercise mats are made of). It can also etch on smaller round objects with the rotary attachment we have (so things like cups, bats, glasses, etc)

**Vinyl Cutting Machine** can cut designs out of vinyl up to 24 inches wide. This includes vinyl that can be placed on cars, walls, or any solid flat surface or on rounded surfaces such as glasses cups etc. It also cuts designs out of HTV (heat transfer vinyl) which can then be applied to fabrics such as shirts, bags, etc.

**Die Cutting Machine** can cut designs out of paper, cardstock, fabric, felt sheets, leather, and vinyl, and craft foam.

**3D Printers** can print small items (up to 7 x 7 inches) out of PLA filament. You can print anything you find on sites like Thingiverse.com or that you create using 3D design software like Tinkercad.com (free online software).

**Button Making Machine** will make buttons using any design you make that fits within an 1 ¾ circle. With this machine we can also order parts to make things like jewelry and magnets by changing the backing used in the machine.

**Heat Press** will attach heat transfer vinyl and heat transfer sheets to fabric (hats, shirts, bags, etc.) and certain specialty ceramics like coasters, plates or mugs.

**Sublimation Printer** will allow users to print out a design on letter sized paper and then apply those designs using heat to polyester type fabrics. This is different than iron on transfers as it transfers the ink straight from the sublimation paper into the fibers of the fabric. This means it won't peel or crack like vinyl or other types of iron on transfer materials.

**Fabric Pattern Projector** will allow users to pick a fabric pattern for items such as clothing, bags, accessories. Patterns for clothing can be customized to the persons individual measurements.

**Presenter Cameras** allow program instructors to clearly project what they are doing onto the Makerspace TV so that class participants can more easily follow along. It also allows for recording of programs for future use. It also has stop motion recording capabilities.

Why do we have 2 laser cutters?

One of them is for large sized projects and the other is for smaller projects. They have different learning curves and use different sized lenses which affect the type of detail that can be achieved.

Why do we have 2 3D printers?

A member of the board asked us to purchase a second one. The newer one has more features and can print wirelessly and has an on board air filtration system. Having 2 allows us to print more than one project at a time which saves a lot of time because 3D printing is very time consuming. Prints items can take anywhere from 10 minutes to 10 hours or more!

Can we ask the Makerspace to make stuff for our programs or departments?

Sure! We encourage you to brainstorm with us to come up with creative ideas to be brought to light with the above equipment. We have already made signage for the bathrooms and IT and administration with vinyl. We also made tote bags with a heat transferred vinyl design on them for the country fair a few years back. Another project that was completed with the Maker Space were the butterfly and dinosaur 3D puzzles created for the kid's craft table at the country fair in 2019.

We just ask that you be mindful that projects take a lot of time from inception to completion so give us lots of time to complete a project. Last minute requests will probably be denied.

Will the Makerspace be open to the public?

Policies and procedures are currently being finalized to allow patrons ages 15 and up who have completed a Makerspace waiver (ages 15-17 will require a guardian to be with them at all times) to sign up for hour long sessions to come into the Makerspace to either learn how to use the equipment or if they have already been trained to come in and use the equipment for their own projects within the rules and guidelines of the Makerspace.