

DOMINION HIGH SCHOOL

Sterling, VA

The Dominion High School makerspace is an updated CTE classroom paired with a set of mobile maker carts. Students in the makerspace will have access to the latest in digital fabrication machines and electronics in order to create public products for the world that solve authentic challenging problems. The maker carts will be spread out around the school providing access to maker tools in every classroom.

Meet the Makers at Dominion High School

July Update

1. How is your vision for a makerspace innovative?

Our makerspace and maker carts address the issues of finding space and scaling up to bring makerspace to an entire high school. By reinventing spaces such as old computer labs or out-of-date CTE rooms it becomes possible to start makerspaces without huge renovation costs. The maker carts increase access to resources allowing the concept of learning by making to permeate the entire school culture.

2. What are you most excited to get started on this summer?

The most exciting part of the summer will be customizing the makerspace and maker carts to meet the interests of our teachers and students. There have already been some great ideas like a phone repair station and a recording studio/DJ booth. We are reaching out to the maker community to create partnerships to incorporate as many of these ideas as possible.

August Update

3. Can you describe the types of people who have been involved in your build out?

Our core CTE Makeover Challenge team has been working all summer to create partnerships with both local businesses and maker tool companies. We have gotten purchasing advice from local sign making and t-shirts shops with the possibility of internships for students over the summer. Maker tool companies such as Othermachines, iFixit and ShopBot have helped us select the right equipment and materials and offered significant discounts. Teachers, parents and students attended our first community build out day to setup tools and the maker carts. The entire staff came to the makerspace for an introduction to the tools and capabilities of the space and tested out our maker cart.

4. What has been the most challenging part of the summer build out thus far?

The most challenging part of the build out is the amount of time it takes to maximize every dollar. Coordinating donations, sponsorships, and partnerships takes time and patience. Several times we could have easily gone and spent retail on equipment for the space but by working with companies and donors we've gotten things for free or at a substantial discount. Other issues like working around summer school and building maintenance took more time than expected.

5. Have you made adjustments to your original plan since starting your build out? If so, can you describe how you have changed your plan and what sparked the change?

The original plan detailed a space and resources that the whole school community uses. Our plan hasn't changed so much as realizing that the vision doesn't happen day one. It requires times to engage the community. It takes time for teachers and students to see and try the equipment and then imagine the possibilities. We are making great strides in fulfilling the promise of our plan, but we still have a long way to go.

September Update

6. What advice do you have for other schools developing making programs?

The most important advice for educators is to just go ahead and get started. I frequently hear about schools that are 'thinking' about starting a makerspace. It is okay to start small and iterate and experiment while planning a full program. A school makerspace is the idea that students can and should learn by making. That idea can start life in a small bin or box of crafting supplies and grow into a complete makerspace full of digital fabrication tools, electronics and more. The Makerspace Starter Kit is a great tool to help educators get started building a classroom makerspace.

7. As you reflect on your progress, of what are you most proud?

I am most proud of the level of engagement of students and staff as they learn and use the new tools and resources. Students have been making custom t-shirts, hats, stickers and glasses. Classroom teachers have been trying out the maker carts in their classes and suggesting new improvements. The excitement about learning makes all the hard work worth it.

8. What else do you have in the works for this fall?

The next phase for the fall is building out a recording studio for audio and video production, animation and project documentation. Sharing is often an overlooked part of the making process. Having easy to use tools and workflows to capture student work is essential.

9. Now that school is back in session, have there been any surprises about how the space has been used?

One of the surprises is the volume of interest in makerspace tools that can replace the need for outside vendors. Schools spend a tremendous amount of money for custom goods such as t-shirts, stickers, posters, engraving, etc. By bringing some of these jobs in-house, we hope for the makerspace to be self-sustaining.