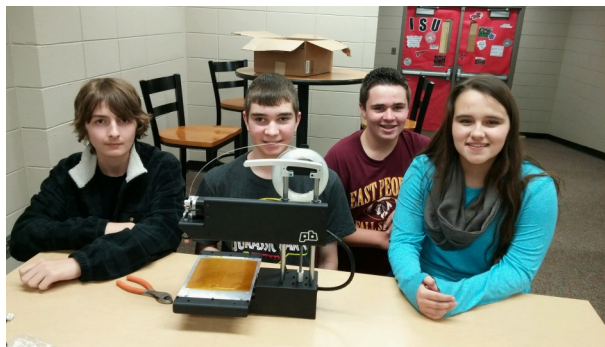




**Maker SPIN Club motto: “If you build it, you will know how to fix it!”**

*“I learned wiring is tough.” “I learned building a 3D printer is kind of difficult. I had to take apart the Y axis several times, but I got really good at putting it back together.”* These comments were from two of the teens who are part of the Maker 4-H SPIN Club at East Peoria High School. They have spent the last eight weeks building three 3D printers—one that will remain at the high school, one that will be used at Fondulac Library and one that will be used at River City Labs.



*Jason, Brett, Jared and Abigail of Team SRU are proudly displaying the 3D printer they built .*

The idea of building 3D printers came from their leader and Community Education Coordinator at East Peoria High School, Lorie Becraft. This summer Lorie attended the Makers in Motion camp as a teacher and learner. She participated in training from the Champaign-Urbana Community Fab Lab staff during the morning of camp and then used those skills to help teach Makers in Motion campers in the afternoon. As part of the experience, teachers were encouraged to think about how they could use what they learned in their classrooms. Lorie had already expressed interest in starting a “makers club” at East Peoria High School and signed up for the summer experience to gain more knowledge and skills in the areas of digital fabrication. The idea of building 3D printers really came from the necessity of needing to know how to troubleshoot when something goes wrong when printing. The benefit of building a 3D printer rather than buying one is that through the process of building and programming the printer, the builder gains an understanding not only of the required parts, but how they all work together and why.

With help from volunteers from a local maker group River City Labs (<https://rivercitylabs.org>), and the CU Community Fab Lab (<http://cucfablab.org>), the teens built three 3D printers and are in the process of programming them for the rest of the semester. Staff members from Fondulac library have also been highly involved in the building process and will be home to one of the new 3D printers. Next semester the students will expand on what they have learned to use the 3D printers to engage with other students at school and provide opportunities for them to engage in digital innovation experiences.

This collaborative project is exciting in that it engaged local partners through the Digital Innovation Leadership Program to solve a need for a local school while teaching youth valuable skills in digital literacy and creating new partnerships. For more information on maker activities and 4-H programming in the Fulton-Mason-Peoria-Tazewell unit, contact Judy Schmidt at (309)685-3140 or via email at [schmid7@illinois.edu](mailto:schmid7@illinois.edu).