



The Makerspace at the Columbus Airpark

A Makerspace is...

A collaborative workspace designed for making, learning, and exploring, using high tech to no tech tools.

These spaces are open to students, hobbyists, and entrepreneurs.

Makerspaces may foster entrepreneurship and may serve as incubators and accelerators for business startups



Imagine:

- IUPUC Mechanical Engineering students working with machine tools and 3D printers to prototype their semester-end project.
- Ivy Tech Visual Communications students creating an augmented reality demonstration
- Purdue Polytechnic students 3D printing parts for an autonomous test vehicle



Imagine:

- A mom and her daughter taking a class on changing a bicycle tire
- A group of model rocket builders sewing parachutes to improve their recovery rates
- An artist who has only ever had access to clay creating a sculpture out of metal
- Children attending a summer STEM camp learning about the Internet of Things and how it shapes their lives



Why Columbus?

Increasing demand for skilled, technical workers

39% of all jobs tied to manufacturing

Columbus/Bartholomew County, Indiana, ranks in the TOP 2% of all U.S. counties for manufacturing employment concentration

Need to be “community of choice” to stay competitive



A Fit for the Airpark

Enrich learning for 3,000 students

Enhance Airpark for business tenants

Resource for pilot community

Attract area residents to the campus



If you build it, will they come?

Online Survey - 270 responses and volunteers

Meet Your Makers - 250 attendees

Call Out Meeting - 40 attendees

meet your MAKERS

Saturday, March 2, 2019
Open House
1:00 - 4:00 pm
Meetup of the Garage, ages 21+
4:00 - 6:00 pm

For innovators, inventors and entrepreneurs of all ages
3-D print your newest invention, tear apart a computer, play with a robot. Test your welding skills, meet a mad scientist, meet artists and designers face-to-face. Record a story. Make a magic wand. Meet Your Makers is a celebration of making for all ages. It's a free, interactive event, allowing guests to visit up to ten local spaces where imagination becomes reality.

Map Key
● Makeups locations
● Includes hands-on activity for young kids
● The Garage, ages 21+

Arts & Entertainment District

State Street District

Meet Your MAKERS

- 1 Purdue Polytechnic Columbus**
4444 Kally Street
(Purdue Campus)
Manufacturing comes to life at Purdue Polytechnic. Visit us at the Advanced Manufacturing Center of Excellence to use our fully 3D Printing Zone in operation. To see our CNC mill and lathe create parts, and to see how our Coordinate Measuring Machine (CMM) can precisely measure down to the micrometer level. Purdue Polytechnic Precision Measurement Center has a vast array of measurement devices and standards gauge blocks, calibrated measured to serve the local industrial and maker communities.
- 2 w/ Jonathan Neesi**
609 Washington Street
332 2nd Street
as a collaborative platform, created and produced by renowned designer Jonathan Neesi, that fosters new relationships between art, design, and industry that the local fabricating show, showcasing 5 years of collaborative work with local and see a new product line is launching with the Columbus trademark.
- 3 Ivy Tech Community College Industrial Technology Welding Lab**
2505 Gracison Street
(Ivy Tech Campus)
Welcome to our state-of-the-art Ivu Industrial Equipment Manufacturing Welding Lab, operated by the Tech. On our welding capabilities include SMAW (stick), MMAW (MIG), CWMP (TIG), and Oxy-Fuel. Try to meet the instructor, while experiencing the on-site virtual reality welding simulation.
- 4 Mill Race Center**
901 University Street
Mill Race Center is home to a well-equipped and versatile workshop, used by Mill Race members. Stop in to see instructors for years of our featured members, as well as the demonstration by the members of the workshop.
- 5 J. Irvin Miller Architecture Program**
332 2nd Street
The J. Irvin Miller Architecture Program, housed in the former Republic building, manages the line between art, architecture, and the city by educating architects to be true innovators, inventors, and imaginative thinkers. Enjoy demonstrations of our four ongoing capabilities as well as learn of our workshop, digital art and gallery space with the Columbus trademark.
- 6 FIRST Robotics Team 4928**
475 Stevens Way
Learn about the FIRST program, which trains young people to be scientific and technology leaders and innovators. The high school and middle school teams will conduct a robotics demo. See the workshop, outfitted with CNC, CAD, 3D printing. The tour will feature how the kids work in teams, under the guidance of adult mentors, to build a 100 lb. robot which addresses a variety of tasks and can work with autonomy.
- 7 Foundation For Youth**
402 Hope Avenue
Visit the Boys and Girls Club marketplace where you can use a 3D printer to make a magic wand, see out a map of Columbus, take out a computer, and show your story in our recording booth. All activities are kid-friendly.
- 8 The Garage**
320 4th Street
A meeting with innovators, makers and entrepreneurs if you are not yet, get out for a reception at The Garage from 4:00 to 6:00 pm.
- 9 Mill Race Center**
901 University Street
Make your way up to Techies 505 and meet about electronic music. Get a glimpse of our newest cases, Cardboard Construction, which will be offered for the first time this summer. Tune in and turn up for our Hart Race demonstration and get a look for another robot. Techies 505 is designed for ages 9-12. Cardboard Camp for ages 9-12 and team Race for ages 9-12.

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Three Profiles Emerged:

Hobbyists seek a learning community

Parents want to share their knowledge, skills and interests with children and ignite their passion

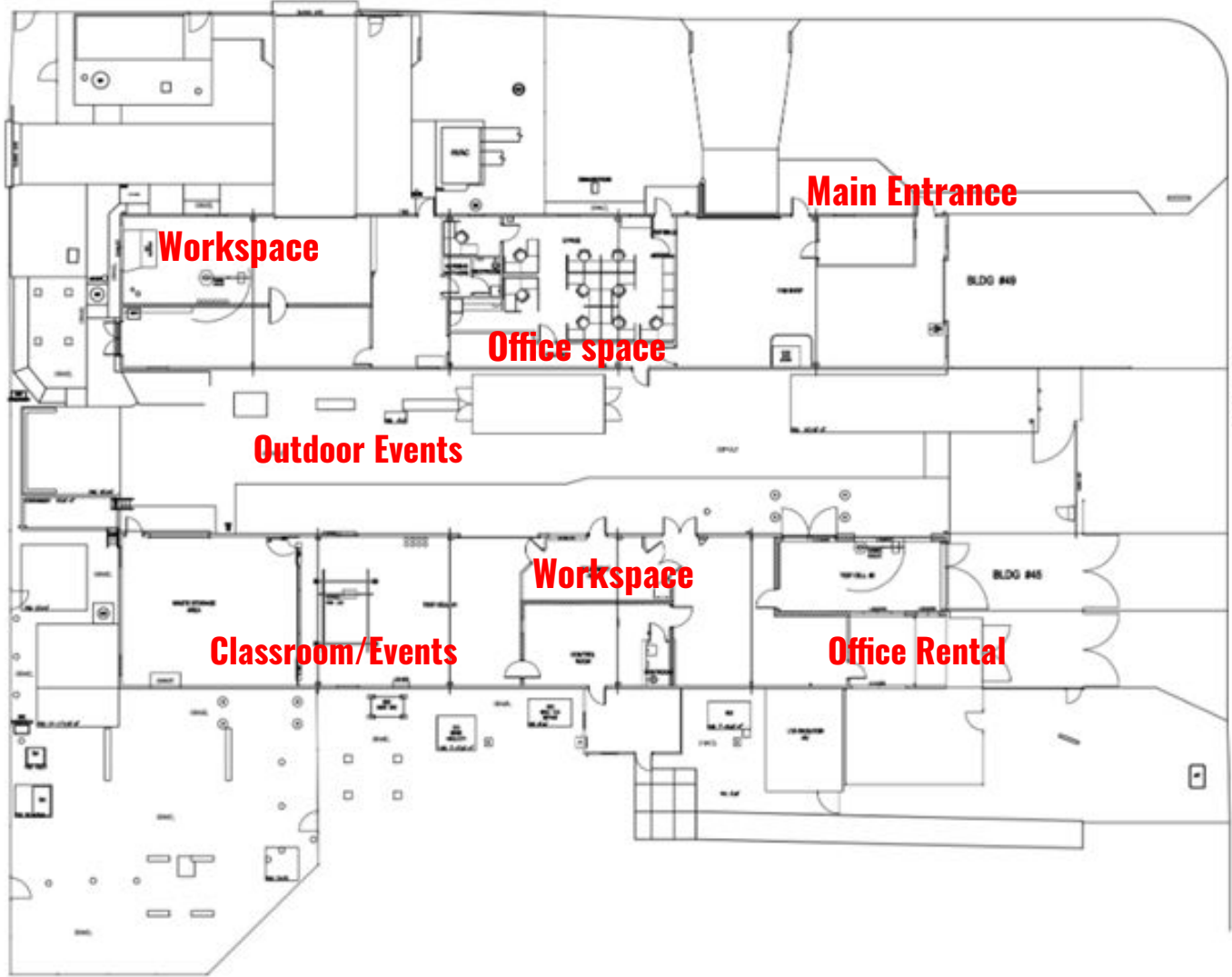
Students desire a dedicated project space to apply classroom learning



Programming:

- Maker Demonstrations
- Workshops and Classes
- Hack-a-thons
- Weekly Build Nights
- Entrepreneurial Speakers, Pitch Nights & Other Events
- Arts and Crafts Fairs





Workspace

Main Entrance

Office space

Outdoor Events

Workspace

Classroom/Events

Office Rental

RAY BOLL BLDG.

Examples across the state

Bloomingslabs

FW Makerspace

Maker 13

Ruckus

SHAK

Bloomington

Fort Wayne

Jeffersonville

Indianapolis

Kokomo



Revenue Sources:

- Student Activity Fees
- Camps and Workshops Fees
- Event or Classroom Rentals
- Office Space Rentals
- Corporate memberships and private memberships



Memberships:

- Corporate Memberships
- Family memberships
- Individual memberships
- Student/Educator memberships

80% said they would be willing to pay \$25 a month
20% would pay more than \$25 a month



Operating Costs:

- Rent
- Utilities
- Insurance
- Part-time staffing
- Swipe card access system
- Consumables
- Marketing expenses



Investments needed:

- HVAC system right sized for new use
- Keyless access system
- Fresh paint and enhanced lighting
- Kitchen/staging area for events
- Concrete work in the courtyard



Risk Management:

- An apprentice model will be used to train and “certify” users on equipment both to protect equipment from misuse and to prevent injury.
- Liability insurance similar to a small machine shop
- Other makerspaces have open source policy around sharing procedures like these

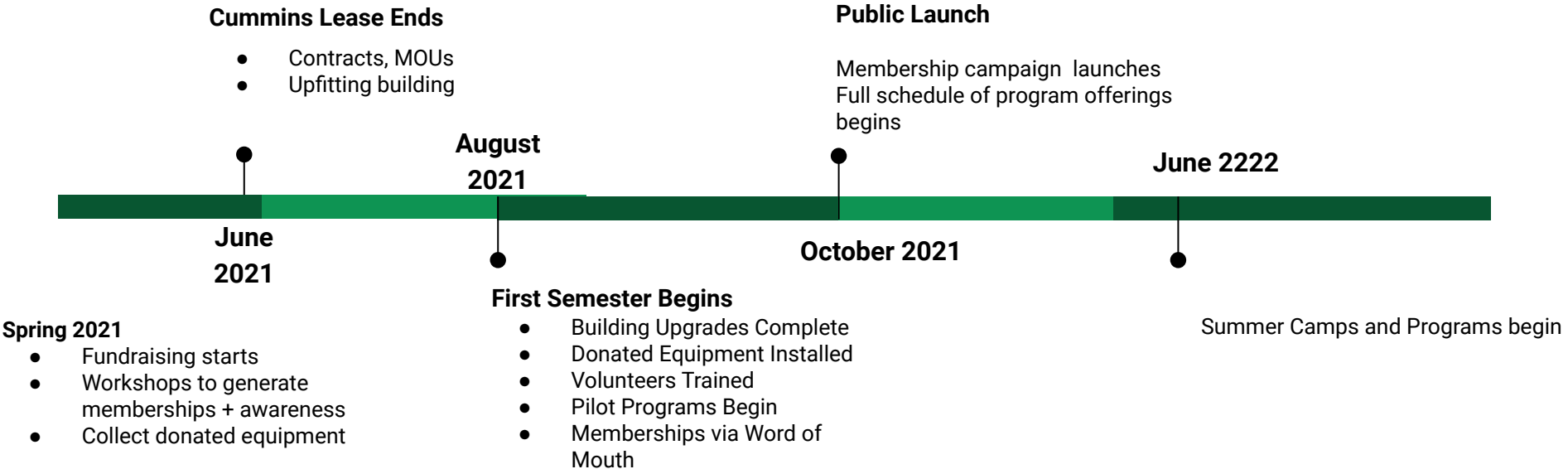


Management:

- A volunteer board of directors
- Part-time staffer to manage memberships, apprentice program, and scheduling
- Open under another organization's 501c3 during the pilot phase



Timeline:



Next Steps for Makerspace Team:

Airport lease agreements, MOUs

Develop organization bylaws, policies, and procedures

Fundraise initial operating costs

Secure and store donated equipment



Our Request:

- Aviation Commission approval to move forward
- Request that Airport upfit the building for this new use
- Request for a 3-year lease with phased-in payments, beginning with a six month abatement

