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OSE Milwaukee Master Plan Cover Letter

Hello World!

The following document contains Open Source Ecology Milwaukee's first master plan. Our goals for fall 2014 through summer 2015 include design progress and builds for four machines, local and global community outreach and the development of effective, interactive media platforms for both OSE Milwaukee and the central organization.

OSE Milwaukee is a new, independent branch of the international non-profit Open Source Ecology. Founded by Dr. Marcin Jakubowski in 2003, OSE aims to make the knowledge, skills and material resources necessary for self-sustainability, on both an individual and communal level, universally accessible through open source hardware and information.

The central organization's main project is the Global Village Construction Set: a collection of 50 machines needed to build a modern society from the ground up. As a separate non-profit upholding the same do-it-yourself ethic and vision, OSE Milwaukee seeks to collaborate with OSE Central on furthering the GVCS's development. As a local organization in an urban setting, OSE Milwaukee also plans to engage students and community members with a variety of events, workshops and activities, in addition to testing the GVCS's application as a solution to pressing city problems.

As leaders of the OSE's new Milwaukee chapter, we look forward to working with local students, engineers, artists, crafters, entrepreneurs, farmers, gardeners and other community members to further the vision of today's open source hardware movement. Our city once had an global reputation for strong, quality industry--a rich history which OSE Milwaukee aims to harness, while embracing the DIY ethics of small-scale production and sustainability. We hope that one day everyone in our city will have the chance to pick up a hammer and build the life of their dreams.

Sincerely,

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OSE Milwaukee 2014-15 master plan

We have set two kinds of goals for fall 2014 to summer 2015: development and engagement. Development goals describe what we want to produce this year. Engagement goals describe how we want to connect with local communities, while building our own. Our development goals include four machines and organizational development. The four machines we aim to develop and/or build are a modular Manual CEB Press, LifeTrac, CNC Mill and Bakery Oven. In the process we will also be producing and testing new forms of documentation. Organizational development goals encompass publicity and funding. All of our development goals for this year may spill into next year's agenda, depending on the year's progress. Projects like these take time, which is why we hope to begin all soon.

Development Goal Details

Following are details on the tentative design, build and budget plans for the four machines OSE Milwaukee wants to develop this year:

- Manual CEB Press

  Design – We already have a Manual CEB Press design from another organization. In addition to evaluating existing blueprints, we also want to develop a version of the machine that produces more than one brick per press. We should only need to host a few design sprints to determine and smooth out the kinks in the current design and create a new one with more chambers.
  Build – A small team will work on prototyping the Manual CEB Press for now, but we still need a space and tools. Because of the Press's potential demand, we may want to begin hosting workshops once we've tested designs and figured out a workflow.
  Budget – There are several organizations across the country that may be interested in funding and using a Manual Brick Press if we make one. We may still need to fundraise for our initial prototypes though.

- **Soil Composition/Brick Production** – Before the existing design for an automated, hydraulic-powered CEB Press or a Manual Brick Press can effectively be used to produce bricks for construction, we must develop a fast and effective way to streamline soil testing and consistently-sized bricks. There are organizations in Cincinnati and Kansas City who are looking to collaborate on this research and on designing/prototyping the manual press.

- LifeTrac 5

  Design – LifeTrac 5 is the largest, most powerful version to date, so we plan to use that at this

point. There's a team of engineers who met at Factor e Farm and plan to collaborate remotely on a new LifeTrac design together. It is unlikely they will finish a redesign on time for us to incorporate it into the winter course, but we should keep up with the project in case we can draw from it.
Build – We should have a core team of people that participate in and guide all steps. The two organizations interested in building and using the LifeTrac—beintween and Victory Gardens Initiative—have connected with Milwaukee School of Engineering to make the build into an extra-curricular class. Those who enroll will participate in the build.
Budget – beintween and Victory Gardens Initiative will cover the build costs that donations and workshop tuition don't cover. We plan to help them with fundraising as much as we can.

- CNC Mill

Design – While OSE has made some progress on a CNC Mill design, the existing design is far from finished. To resolve this, we plan to host a series of design sprints, each centered on a different module or design issue. We hope to combine modularity with high precision CNC technology, a feat that has yet to be accomplished among proprietary and open source engineering. Design sprint details can be found on our Design Flow document.
Build – Instead of limiting the build to a condensed workshop, we will take however much time we need to build the CNC Mill, while still working off of and improving a pre-determined workflow that incorporates quality craftsmanship with parallel-processing.
Budget – Design expenses will depend upon whether core designers want stipends and will require fundraising on our part. If we have another group that wants the machine, they can pay to cover the build cost. If we're building it for ourselves, we need to fundraise for the build as well.

- Bakery Oven

Design – The GVCS has a finished design, but we should still review it before beginning a build. The organization we build this for may also be interested in a different design.
Build – If the organization we heard about is in fact interested in collaborating to build an oven for their business, we have a build location and a starting point for gathering build participants. If they aren't, we may have to hold off on the build entirely until there is because of the nature of the design. (Once built, the oven doesn't move.)
Budget – As with the build, if we have an organization looking to fund and use an OSE Bakery Oven, we have a budget for the build. If not, we don't. The design stage shouldn't require much time, and therefore no or few stipends.

Following are details on the two categories of organizational development:

Publicity

Social Media/Web Presence – OSE Milwaukee will use Twitter, YouTube, Facebook, Instagram and a main website with a regular blog. On these platforms, it will update interested readers and viewers on its events and progress, show its support for other individuals and organizations working on complementary\ projects and engage local and global community members with discourses on OSE's core values, the GVCS's place in society and related topics.
"Bring Back Industry, But Better" Campaign – Our PR team will develop a promotional campaign to solicit financial and participatory support from the Milwaukee community. The campaign will draw from the city's rich industrial history, emphasizing the need to keep production at home and improve it through OSE's sustainable, small-scale alternatives.
General OSE PR– The Milwaukee Chapter PR team will also work on developing a publicity plan the central organization, which currently lacks a permanent public relations staff. This project will include, but not be limited to, developing a separate social-media-like platform for Factor e Farm visitors to blog about their experiences from, creating promotional and reflective videos and story-telling media from the photos, clips and written accounts already archived online, etc.

- ## Funding

  Temporary Fundraising Plans – Before we have a better business model and pool of consistent revenue, we will need to raise some funds to start our projects off. Such funds may be put towards providing active members stipends for leading projects and designing machines, paying for materials for building unfunded prototypes, providing food at events, advertising and other important expenses we encounter as we build our organization.
  Business Model Development – The existing OSE business model, which consists of generating revenue through workshops, may work well once our machines are developed and ready to build/sell professionally. However, the GVCS has a lot of development to undergo until that model can work. OSE Milwaukee will therefore try to develop a business model that can sustain the organization during its research and development phase over the course of this next year.

Software Development?

Machine designs/builds may require us to develop software for the controllers. Also, researcher Fred Eisele from Vanderbilt University in Nashville, Tennessee, may be interested in collaborating with computer programmers participating in OSE Milwaukee to create a CAD model using the open source 3D CAD software developed through the project he's directing.

Engagement Goals

OSE Milwaukee has two main types of engagement goals: those related to building a strong team of members with consistent attendance and those centered on connecting to the city's local communities. We will encourage consistent attendance by ensuring we host fun, educational and productive events. Members should feel they're making a difference in developing the GVCS and their communities, while also learning new skills and having a entertaining, yet enriching, experience. There are several ways we plan on doing this, including internal, hands-on workshops teaching technical skills, such as welding and 3D CAD design; hosting seminars and movie screenings on relevant topics; and taking trips to maker fairs and workshops together.

To connect with surrounding communities, we will collaborate on projects and events and cross-promote. Collaborations include co-hosting events, in addition to designing and producing machines with and for local organizations. Cross-promotion will involve advertising and being advertised by other organizations and sending/receiving members to each other's events.

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