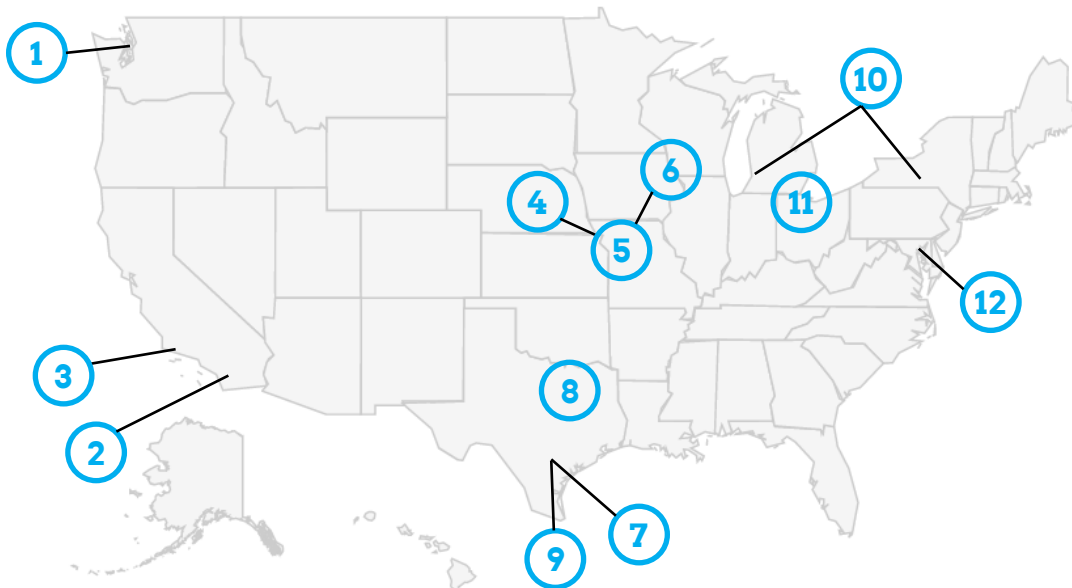


National Development Map



1 Gasifier/Burner ([link](#))
 Seattle, Washington
 Larry Dobson

The *Gasifier Burner* converts biomass fuel into power and useful chemicals. It is currently in the **Design** stage of development.

2 Ironworker ([link](#))
 San Diego, California
 Brianna Kufa

The *Ironworker*, serving as the backbone of many fabrication shops, combines a punching machine, plate shear, section shear, punch and shear machine, and a copper-notcher. It is currently in the **Prototyping** stage of development.

3 Replication ([link](#))
 Pasadena, California
 D&H Tractors

Daniel & Hayden are replicating the *LifeTrac* design with their high school engineering class and plan to donate it to the *Los Angeles South Central Farmers*, subject of the *Academy Award* nominated documentary **The Garden**.

4 CNC Circuit Mill ([link](#))
 Factor e Farm, Missouri
 Yoonseo Kang

The *CNC Circuit Mill* enables automated production of electronic circuit boards, and, as a GVCS technology, it enables automation functionality. It is in the **Prototyping** stage of development.

5 OSE Headquarters ([link](#))
 Factor e Farm, Missouri
 Marcin Jakubowski

Factor e Farm is the central location of development and training; hosting the **OSE Fellows** at a 30-acre permaculture farm held as a community trust. We have a 3,000 sf fabrication and training facility and 10 living units for visitors.

6 Saw Mill ([link](#))
 Maysville, Missouri
 Sweiger Shop

The *Sawmill* converts felled logs from trees into dimensional lumber, and it enables a range of well-established wood construction techniques. It is in the **Prototyping** stage of development.

7 Replication ([link](#))
 Austin, Texas
 James Slade

James did a dedicated project visit at *Factor e Farm*, learning to build GVCS machinery, and he returned home to replicate the *Compressed Earth Brick Press* and *LifeTrac*.

8 Replication ([link](#))
 Dallas, Texas
 Tom Griffing

Tom did a dedicated project visit and returned home to build a refined version of the hydraulic power unit. He actually improved on our designs, which is exactly what we hoped to see. He plans to build the *LifeTrac* next.

9 CNC Plasma Cutter ([link](#))
 Austin, Texas
 Luke Iseman

The *CNC Torch Table* is capable of cutting intricate designs out of metal with a 2-axis torch controlled by computer. It is in the **Prototyping** stage of development.

10 Steam Engine ([link](#))
 Berrien Springs, MI/Willseyville, NY
 Tom Kimmel/Mark Norton

The *Steam Engine* is capable of converting steam generated by a solar concentrator into power that can be used to generate electricity or drive the machinery of the GVCS platform. It is in the **Prototyping** stage of development.

11 Heat Exchanger ([link](#))
 Detroit, MI
 (N/A)

The heat exchanger generates steam to power steam engines or steam turbines, while excess heat can be used to create warmth for a home or greenhouse. It is in the **Prototyping** stage of development.

12 Replication ([link](#))
 Baltimore, MD
 Andrew Spina

Andrew is building a *Power Cube* and a *LifeTrac* based solely on our distance learning materials.