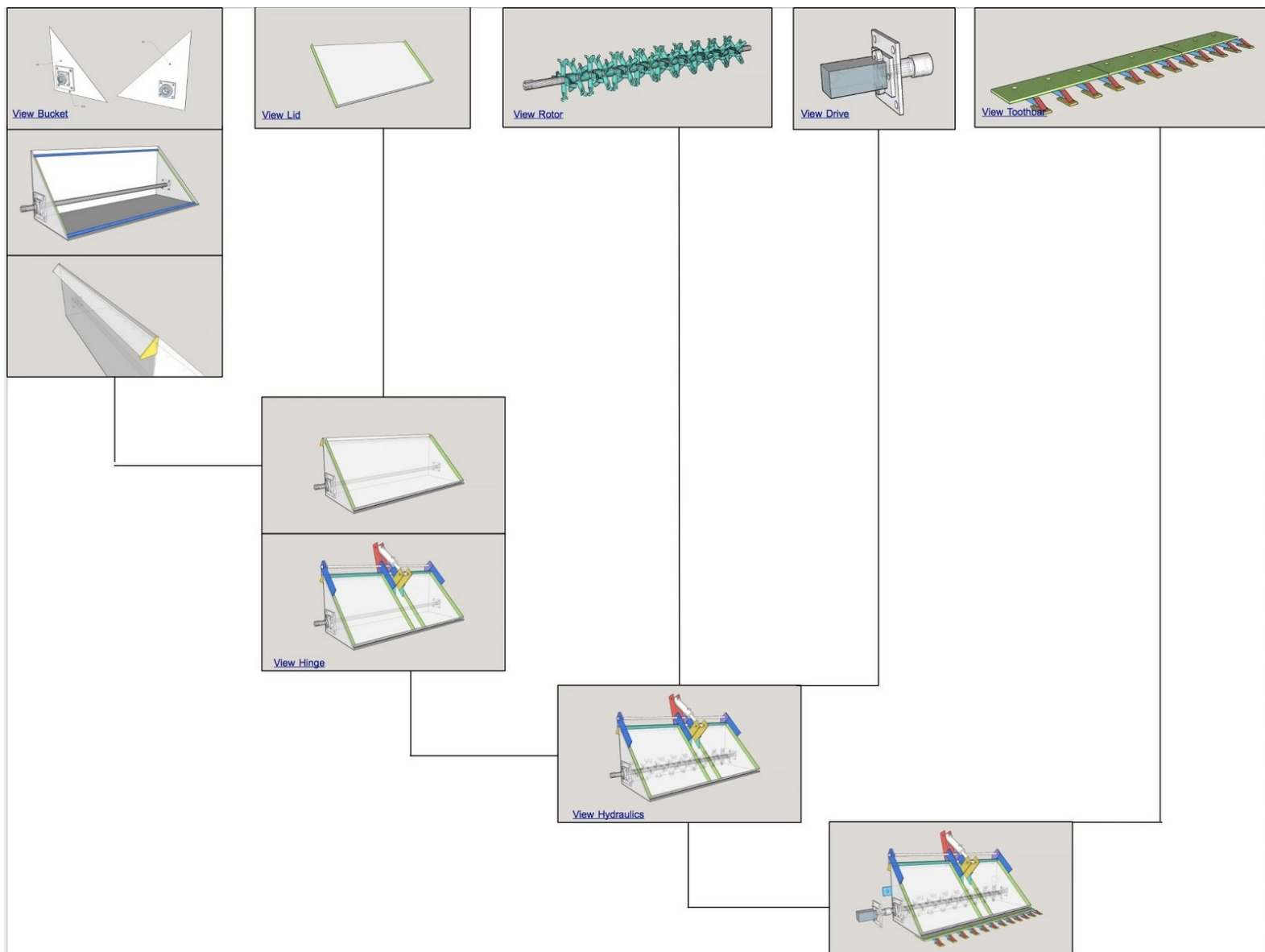




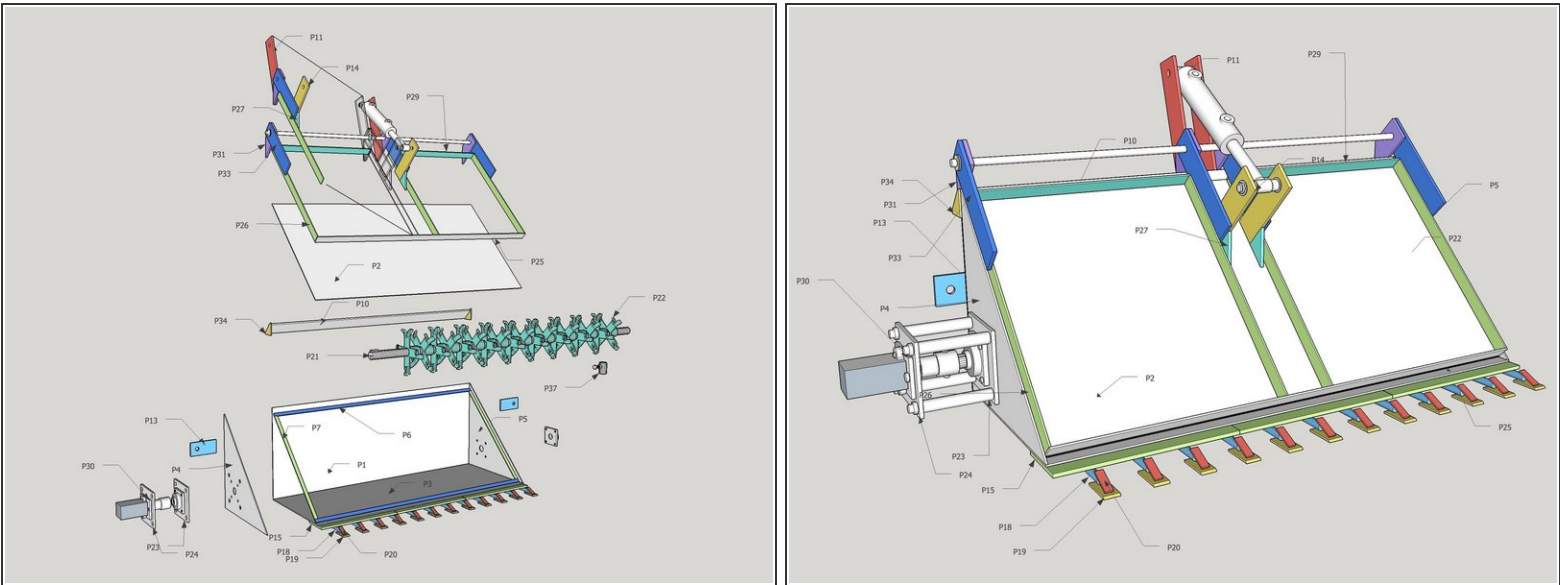
Fabrication Instructions - Overall Soil Mixer

Step by step instructions for fabricating the Soil Mixer

Written By: Andrew Graham



Step 1 — Soil Mixer Overview



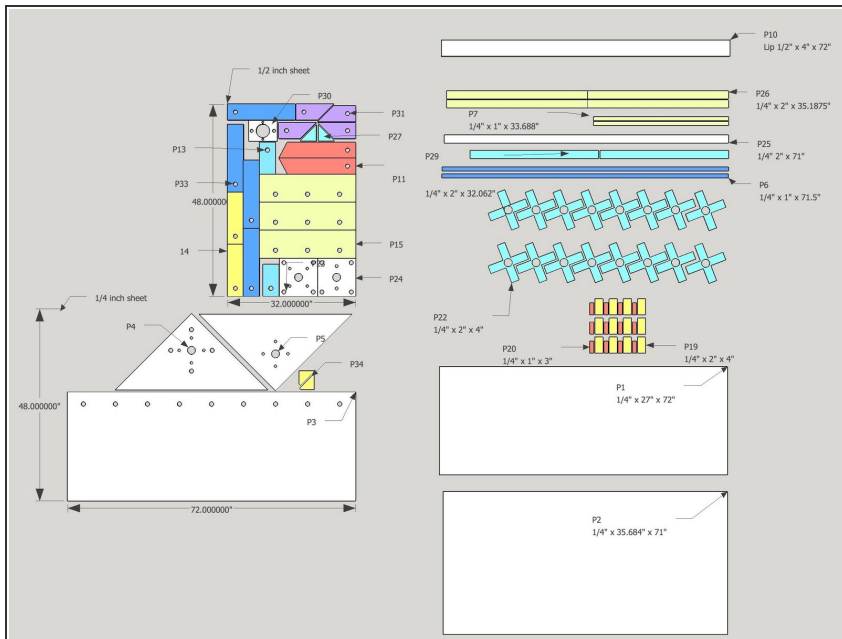
- Exploded parts diagram

Step 2

BOM		
File Edit View Insert Format Data Tools Help Last edit was made 3 hours ago by anonymous		
fx More info		
A		B
1	More info	ITEM DESCRIPTION
2		bolts, threaded rod
3		
4	for motor mount,	threaded rod 1" x 13"
5	for cylinder rod end	1"x8" bolt
6	for cylinder base	1"x 6.5"
7	for connection tabs	1" by 3"
8	for the tooth bars	1" by 1.75"
9	for the bearing mounting.	5/8" by 2"
10	threaded rod, for motor quick attach plate,	1/2 by 2.5"
11	for further motor mounting and tine modules	3/4" by 2.5"
12	for spline coupler to shaft pin (bolt).	1/2" by 4"
13		Associated nuts
14		nuts for tine modules
15		1"
16		1/2"
17	for tine modules and motor mounting	3/4"
18		5/8"
19		Washers
20	washer for the hinge,	1" inner dia.
21		Pre made mechanical parts
22		
23		bearings, 1 7/8 in inner dia (bore), SAE A mount
		Hydraulics

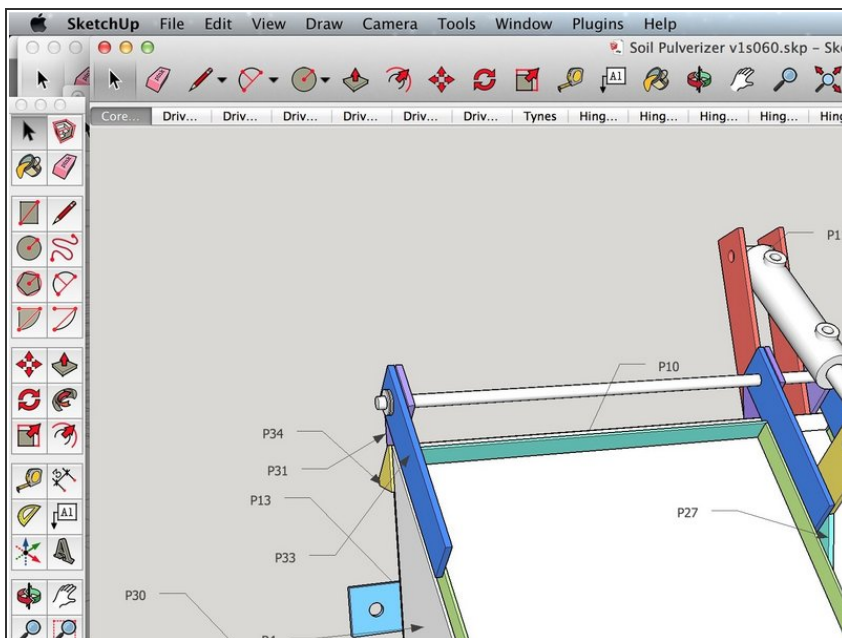
- BOM
- [http://opensourceecology.org/wiki/Soil Mixer](http://opensourceecology.org/wiki/Soil_Mixer)
- Acquire all parts required in the BOM

Step 3



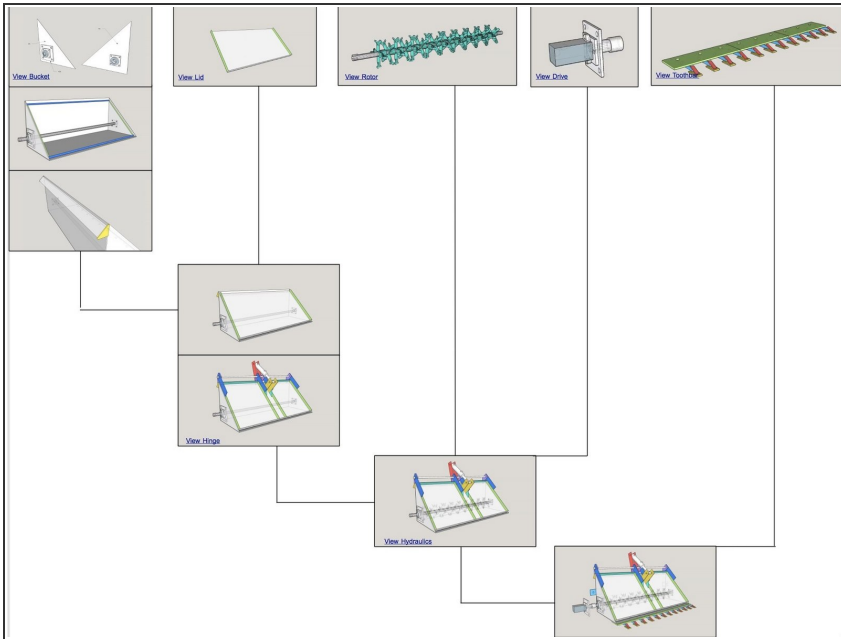
- **CAM Files for Plasma Cutting/CNC**
- [Latest DXF files on the OSE Wiki](#)
- Send the 2 DXF files to a CNC cutter. The smaller sheet is 32" x 48" @ 1/2" thick. The second larger sheet is 48" x 72" @ 1/4" thick. The third file can be cut from standard stock. All of these parts are produced from mild steel.

Step 4



- **CAD MODEL**
- [Latest Sketchup file on the OSE Wiki](#)
- Familiarise yourself with the sketchup model to see how it all fits together.

Step 5



- **Parallel workflow**
- Work through each of the modules designated in the [workflow diagram](#)
- It is possible to have up to 5 groups working in parallel to produce the machine more rapidly. The google drawing contains links to each module to order module completion.
- [Fabrication Diagram](#)