FreeCAD for Newbies
(Cuz I’m one too)

Terry Howald
Midwest RepRap Festival
3D Printing Workflow

1. CAD Program (Autodesk/Sketchup/etc.)
   - Thingiverse
   - Youmagine

2. .STL File
   - Slicing Software: Makerbot
   - .makerbot File

3. 3D Printer
Thingiverse
Blender 2.8
Blender 2.8
FreeCAD 0.18
FreeCAD 0.18
<table>
<thead>
<tr>
<th>Blender</th>
<th>FreeCAD</th>
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</thead>
<tbody>
<tr>
<td>• Direct modeler</td>
<td>• Parametric modeler</td>
</tr>
<tr>
<td>• Mesh model</td>
<td>• Solid model</td>
</tr>
<tr>
<td>• Shell represents 3D</td>
<td>• Volume represents 3D</td>
</tr>
<tr>
<td>• No mass or volume</td>
<td>• Has mass and volume</td>
</tr>
<tr>
<td>• Organic designs</td>
<td>• Geometric designs</td>
</tr>
<tr>
<td>• Animations</td>
<td>• Technical parts</td>
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</tbody>
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FreeCAD - 3D Parametric Modeler

- Parameters determine size and shape of models
- Modifying parameters directly changes the model
- Modifying parameters in the model’s history
Ubuntu 19.10 (Eoan Ermine)
Install via AppImage
Install via Binary Package
Start FreeCAD
Thingiverse Model Import
Part Workbench
Punch/Die Set
Punch/Die Modeling
Mechanical Drawing
Part Design Workbench
Questions and/or Comments

FreeCAD for Newbies

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