

## Chapter 20- Springs, Screws and Gears

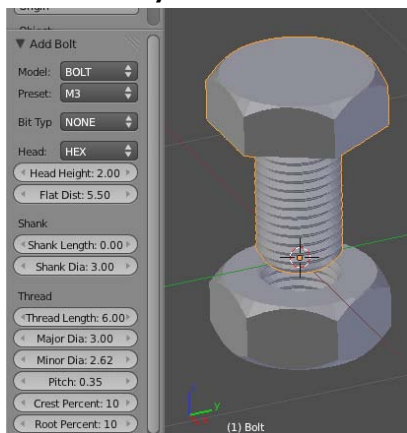
### Blender Add-On Meshes

Using the above techniques have always been in Blender and can work well for making mechanical parts like screws, bolts and gears, but with version 2.5, there are now easier ways to do these things. For the past several releases, there has been a script included with Blender called *Bolt Factory*. It worked great for making bolts and nuts, but many users didn't know it existed. Now, you can have that feature (and others) appear in the "Shift-A" add menu by enabling the "Add-Ons" in the *User Preferences* menu. This has been discussed earlier in the book, but here are the details again.

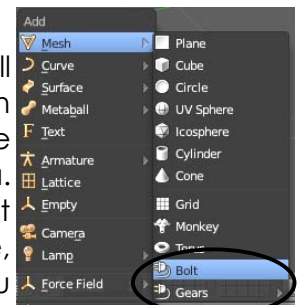
Go to the "File" pull-down menu and select "User Preferences". In there, you will see a tab called "Add-Ons". There are a lot of nice features you may want to use in there and by checking the box, the script will be enabled. For now, we are checking "Add Mesh- Bolt Factory" and "Add Mesh-Gears". If you want these enabled at all times, save the defaults. There are also many other mesh types that could be useful in the Add-Ons. These features are pretty simple and easy to figure out, but here are the basics:



### Bolt Factory:



When you hit "Shift-A" now, you will see the 2 new options in the mesh menu. By selecting "**Bolt**", you will see a list of options in the *Tool Shelf* area. You can select bolt or nut, a preset metric size, head shape and type, lengths, etc. Almost everything you need for quick hardware.



### Gears:

There are 2 different types of gears you can add. A worm gear and a gear (spur gear). You have many setting options that can be changed with terminology related to real gear development.

