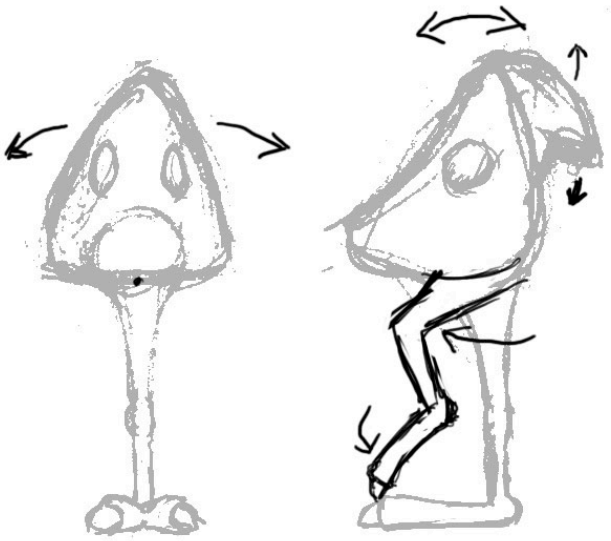
Computer Animation II

Assignment 3

The purpose of this assignment is to give you experience articulating a character - in this case, your version of Dip from the last assignment. He's got to be able to move in the ways indicated on the rough articulation diagram:



Requirements:

- Do all articulation on the base/control mesh, not the smoothed one.
- Create an appropriate hierarchy of named bones with his "butt" as the root node.
- Make the bending areas look as good as possible.
- Create an inverse kinematics chain for bending his leg (and keeping his heel on the ground).
- Constrain the knee to bend only along the appropriate axis.
- Provide appropriate controls for the various moving parts. Name them properly, and provide a WRITTEN DESCRIPTION of how to use the rig (a text file alongside your model is fine).

Notes:

- Backup your original model and delete the construction history before starting.
- Create your skeleton with an eye for proper pivot placement. It's okay to have bones in a hierarchy that do nothing!
- Leave slight bends between the bones in the leg for better IK solving.
- Set up IK after creating the skeleton but before skinning the model.
- Skin your model by binding the control mesh to the appropriate bones. Read about smooth, rigid, and indirect skinning in the Maya pdf manual (Character Setup) and choose your method(s) accordingly.
- Deformers and bound skins exist within the construction history of the object, in other words, if you delete history AFTER you articulate your object you will lose all the articulation! Bad.
- Start by roughing in a rig and see where there are problems. Then go back and add painted weight maps or constraints or deformers where necessary to make the problems go away.
- Did I mention to read the pdf file on Character Setup? It is your best guide.
- There's not enough class time to cover everything you will need to create a good rig, so make early and frequent use of the available help to boost your understanding of rigging (the manuals, your fellow students, me, the graphics/animation forum time).

DUE Monday February 26th at the beginning of class