Amanda is using Posey and the Puppet Show application to build a teddy bear puppet. First she assembles a skeleton of a teddy bear by connecting the physical hubs and struts. Next she skins the virtual puppet with puppet parts from a menu. Finally she animates her puppet by manipulating the physical model.

Posey
a computationally enhanced hub-and-strut construction kit

Michael Philetus Weller, Mark D Gross, Ellen Yi-Luen Do*
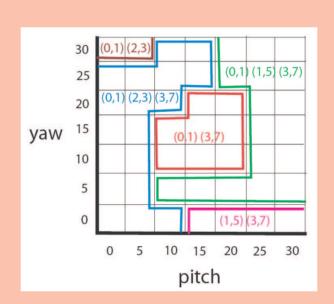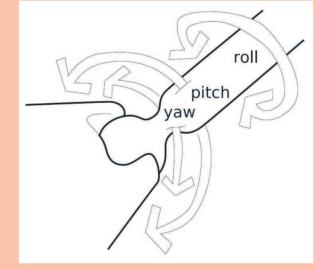*ACME Lab, Georgia Tech

The Posey construction kit is composed of hubs and struts with poseable optocoupled ball and socket connectors.

Technology

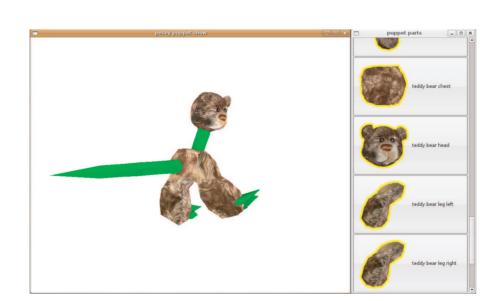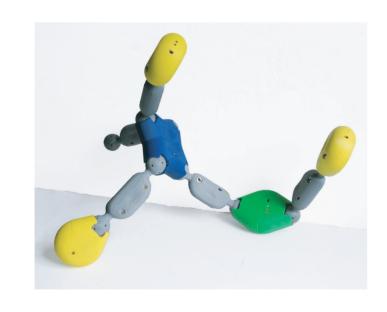LEDs embedded in each ball send serial data to photosensors in each socket.

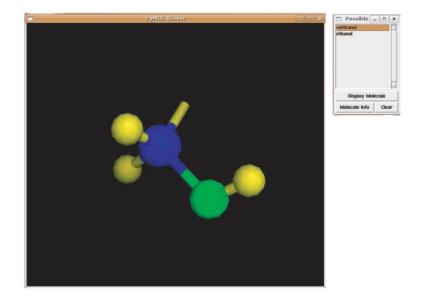A lookup table is used to infer the angle of connection from observed LED-photosensor couples.

Applications

The Puppet Show application is for building and animating virtual puppets. Left - the physical skeleton of a "bearosaur" puppet; right - a screen shot showing the 3D view window and puppet part menu.

The Molecule Explorer application treats hubs as atoms and struts as bonds and gives feedback on related molecules. Left - a nearly complete Methanol model; right - a screen shot showing the modeled atoms.

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