

1125-AH-849      **David Bachman\*** ([bachman@pitzer.edu](mailto:bachman@pitzer.edu)), Pitzer College, 1050 N Mills Ave, Claremont, CA 91711. *Using Grasshopper to design 3D-printable models.*

Grasshopper is a graphical scripting platform for the popular CAD program, Rhinoceros 3D. By dragging and dropping component boxes onto a blank canvas, and connecting them with virtual wires, the user creates complex scripts which generate any kind of mathematical design. By using sliders and control knobs these scripts become interactive, allowing the user to make aesthetic design choices. Furthermore, there are many plug-ins for Grasshopper that expand its functionality by adding physics-based modeling tools, voxel-based modeling, etc. However, as with any modeling program, particular care is required to guarantee the resulting designs are 3D printable. (Received September 12, 2016)