V-stylePopupMaker (by Xianying Li)

This software should be executed on Windows Vista/7 systems.
Choose the GreenApp package if the user is with the MFC support.
Otherwise the user may run the Setup package to install.

Operations in the Top-Left Window

Scroll the WHEEL to zoom in/out.
Press and Drag LeftButton to rotate the pop-up.
Press and Drag MiddleButton to translate the pop-up.

Press CTRL + Click LeftButton/RightButton to select the two base patches (in Gray).
Click RightButton once the two base patches are selected, the popup menu would show all possible mechanisms upon these two base patches.
Choose a mechanism to add, where the new patches are in Red.
Press SHIFT + LeftButton to slide the new patches (in Red) for S1, D1, D2 and D3.
Click RightButton and then Click "Flip Mechanism" to flip the mechanisms S2 and D3.
Click RightButton and then Click "Compute Safe Region" to compute the safe region (with collision-free and enclosing properties) for the new patches (in Red).
Press ESC to escape the mechanism mode.

Double Click LeftButton to select a patch, the selected patch would be then appeared in the Bottom-Left Window.

Click menu item "Tools->Clear All" to reset the pop-up.

Operations in the Bottom-Left Window

In this window, the Safe Region is in Yellow, and the Polygon is in Blue.

Drag LeftButton to translate the panel.
Click LeftButton at a polygon vertex and drag it.

Once the polygon is not closed, Press CTRL + Click LeftButton to choose vertices one by one.
Press CTRL + Click LeftButton at the Start Vertex to seal the polygon.
For a closed polygon, Double Click LeftButton at an existing vertex to delete it, or at some other place to create a new vertex.
Click RightButton and then Click "Save Polygon" to save the current polygon, and then it would be displayed in the Top-Left Window.
Click RightButton and then Click "Clear" to clear the polygon.

Output

Click menu item "Tools->Export OBJ Model" to output the v-style pop-up into OBJ files.
There are totally five files: "result_B.obj", "result_G.obj", "result_L.obj", "result_R.obj" (the patches in four directions), and "result.obj" (the whole pop-up).

They are all in the same directory as the input model.

Click menu item "Tools->Export Multi-Angle OBJs" for models with different opening angles during the popup process.