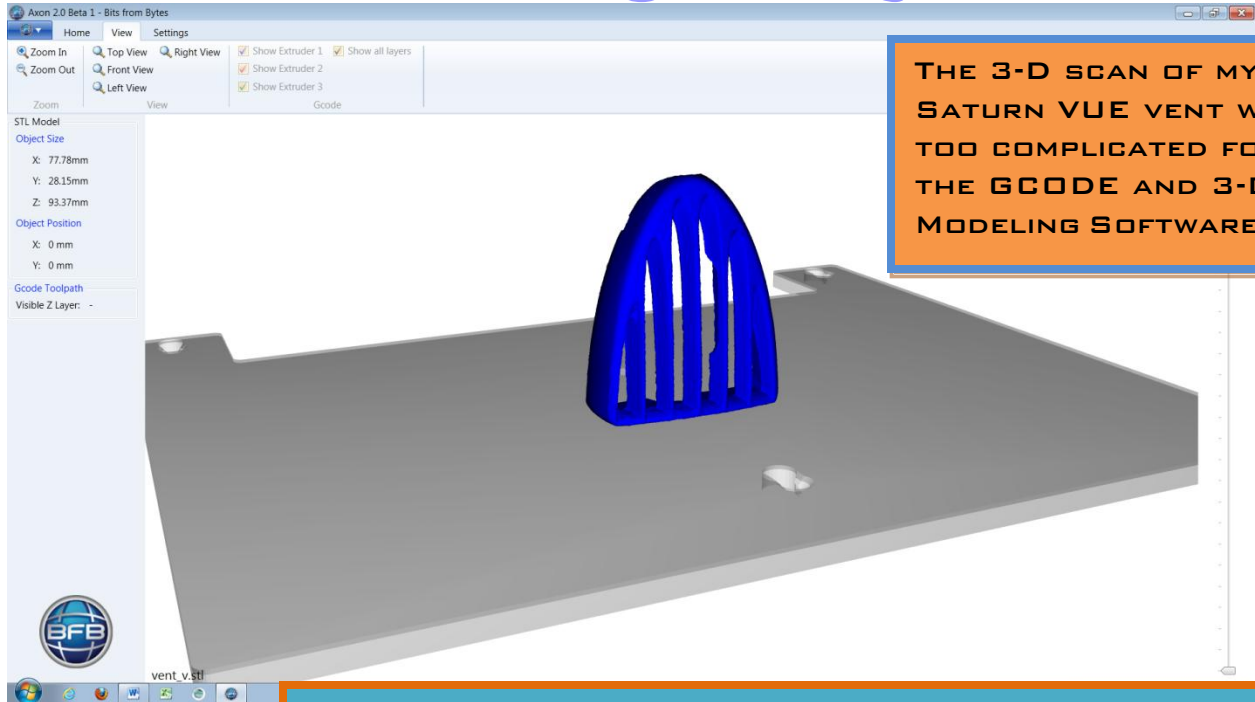
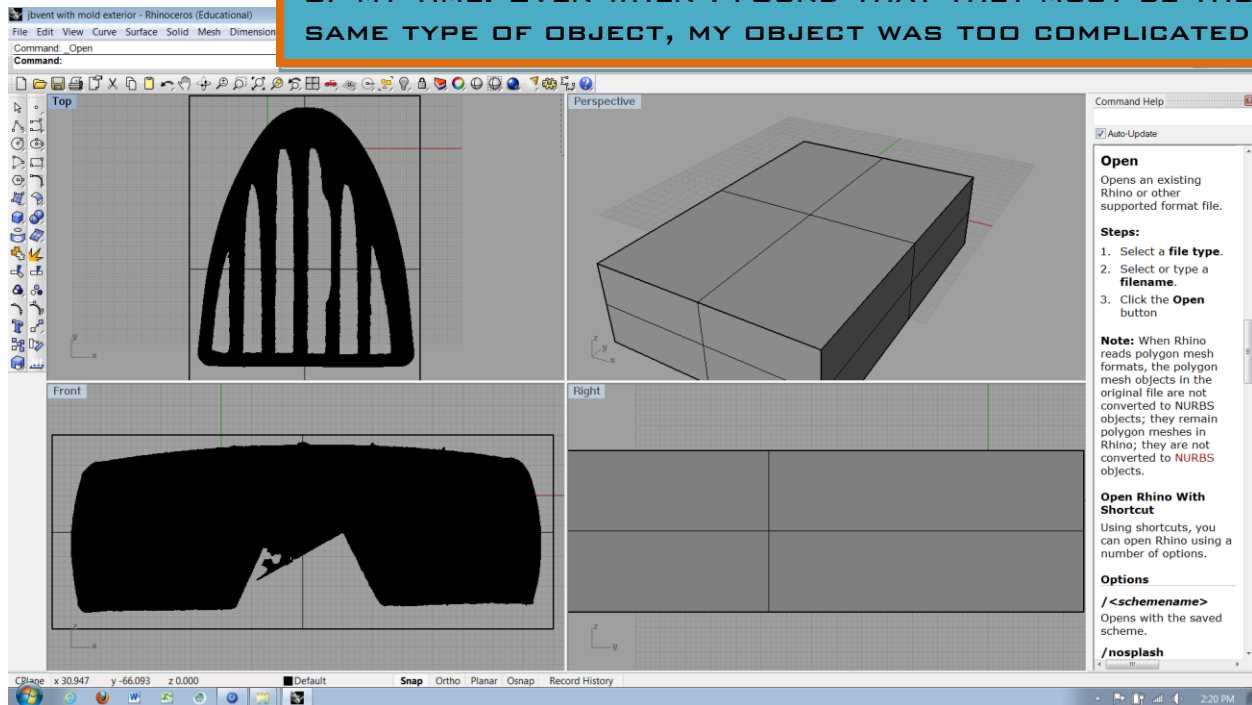


# Mold Making Project



THE 3-D SCAN OF MY SATURN VUE VENT WAS TOO COMPLICATED FOR THE GCODE AND 3-D MODELING SOFTWARE

ATTEMPTING TO BOOLEAN A NURBS OBJECT AND MESH OBJECT (WHAT THE 3-D SCANNER IMPORTED) WASTED HOURS OF MY TIME. EVEN WHEN I FOUND THAT THEY MUST BE THE SAME TYPE OF OBJECT, MY OBJECT WAS TOO COMPLICATED.



Command Help

Auto-Update

**Open**  
Opens an existing Rhino or other supported format file.

**Steps:**

1. Select a **file type**.
2. Select or type a **filename**.
3. Click the **Open** button

**Note:** When Rhino reads polygon mesh formats, the polygon mesh objects in the original file are not converted to NURBS objects; they remain polygon meshes in Rhino; they are not converted to NURBS objects.

**Open Rhino With Shortcut**  
Using shortcuts, you can open Rhino using a number of options.

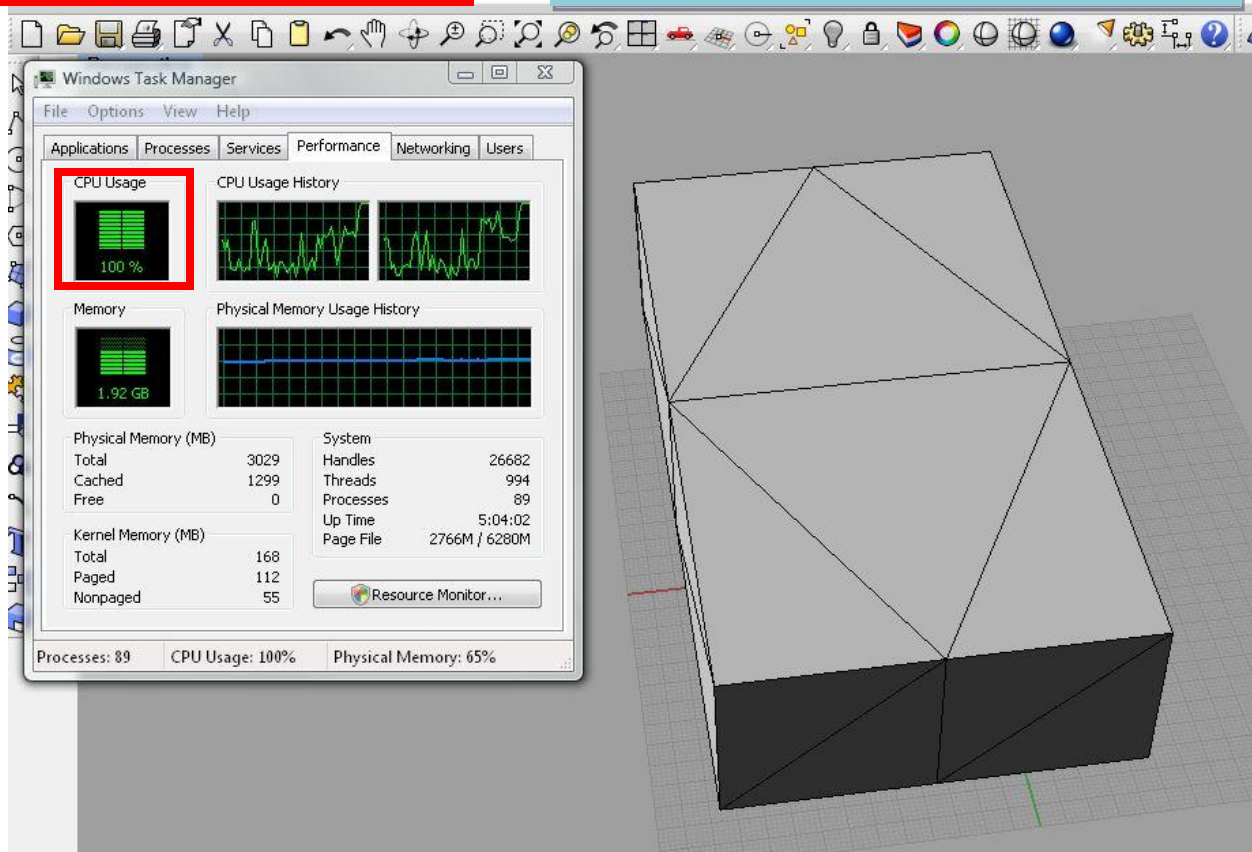
**Options**

`/<schemaname>`  
Opens with the saved scheme.

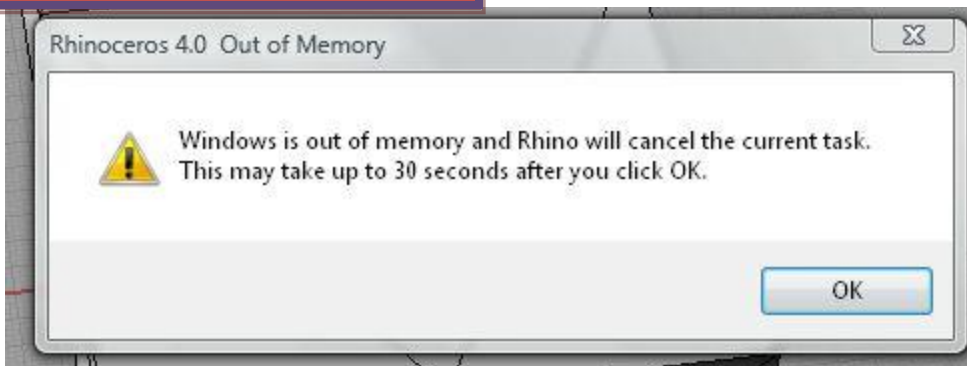
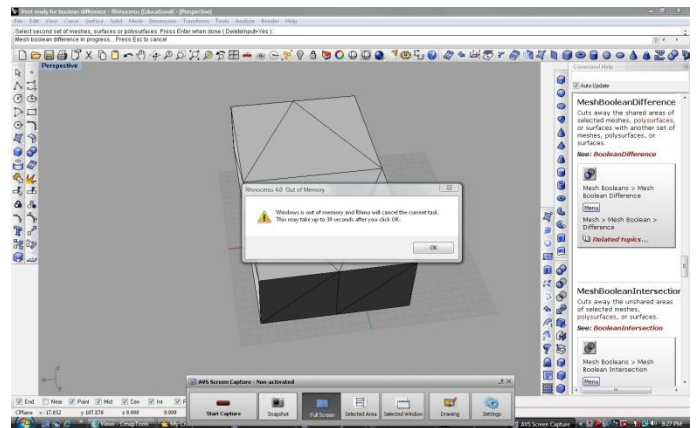
`/nosplash`

**AFTER NUMEROUS CRASHES I DECIDED TO TRACK MY USAGE AS I TRIED THE BOOLEAN FEATURE. OBVIOUSLY IT WAS MAXING OUT MY COMPUTER USAGE.**

vent ready for boolean difference - Rhinoceros (Educational) - [Perspec  
File Edit View Curve Surface Solid Mesh Dimension Transfo  
Select second set of meshes, surfaces or polysurfaces. Press Enter whe  
Mesh boolean difference in progress... Press Esc to cancel



**AFTER SEARCHING THIS ERROR ON GOOGLE.COM I FOUND THAT THIS IS A COMMON ERROR BECAUSE I HAVE THE WINDOWS 32 BIT SOFTWARE AND IT CAN ONLY PROCESS 2 GB AT A TIME. SO I SPENT MANY AN HOUR IN THE CAD LAB UNTIL I FINALLY DECIDED TO TAKE A STEP BACK AND GO SIMPLER.**

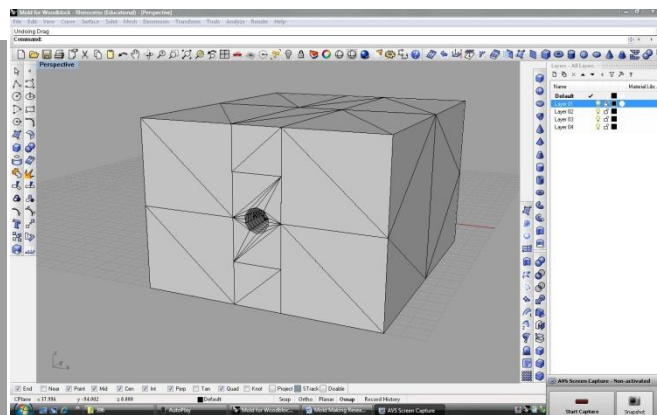
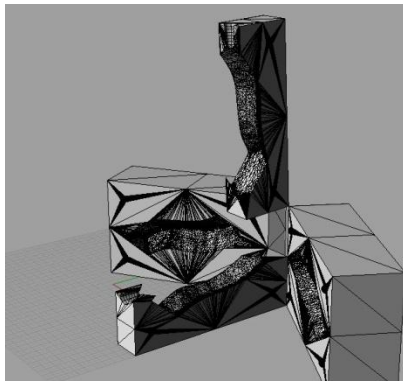


# THE WOOD BLOCK MOLD

MUCH BETTER



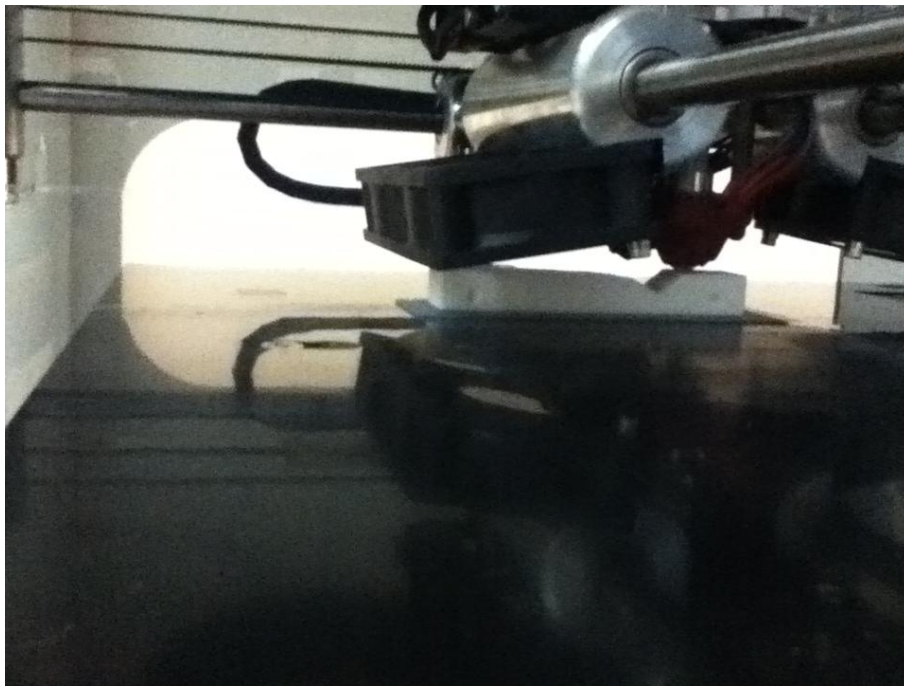
IN NO TIME I HAD A 3D MODEL CREATED FOR THE MOLD. DUE TO SOME SLIGHT UNDERCUTS I HAD TO CREATE THE MOLD IN FOUR PIECES. I USED HALF SPHERES AS THE KEY TO ALIGN MY MOLD. WHEN I FINISHED THE MOLD IT WAS AWFULLY BULKY AND THE ORIGINAL PRINT WAS GOING TO TAKE FAR TOO LONG. TO REDUCE THE TIME AND MATERIAL I REDUCED THE SIZE OF THE MOLD BLOCK TREMENDOUSLY BY LITERALLY CUTTING CORNERS WHERE POSSIBLE, LOWERED THE FILL DENSITY, AND UPPED THE SPEED. I CUT EACH OBJECTS TIME BY ALMOST 75 PERCENT.



**TEST FITTING  
THE PRINTED  
PIECES**



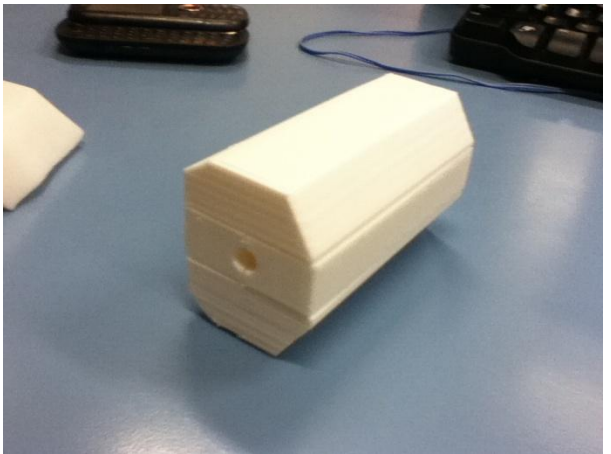
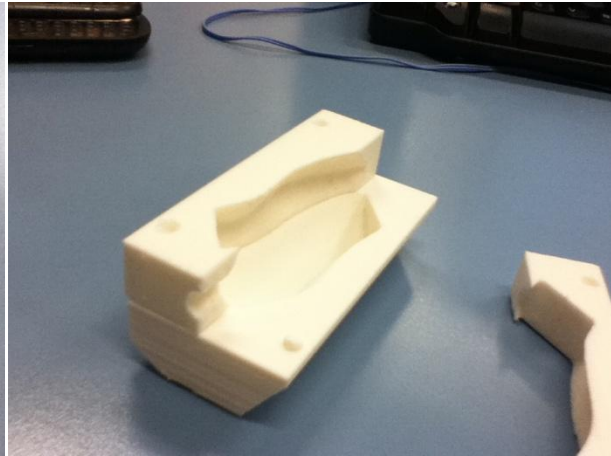
**THE PRINTER IN  
ACTION!**



**BETWEEN TWO  
DAYS, NEARLY  
24 HOURS OF  
WORK AND  
FINALLY A MOLD  
WAS MADE...**







THE TOTAL PRINT TIME WAS ABOUT SIX HOURS. I HAD THE SETTINGS SET SO THAT IT WOULD BE A FAIRLY FAST PRINT AND I WAS IMPRESSED BY ITS ACCURACY. I FIGURED WITH A HIGH SPEED THE OUTCOME WOULD PAY QUALITY WISE BUT IT WAS FAIRLY SMOOTH ALL THE WAY AROUND. I DID HAVE SOME PRINT DEFECTS TO CLEAN UP BUT WITH A KNIFE AND SOME SAND PAPER THEY WERE NO TROUBLE. ALL AND ALL I'M EXCITED TO SEE A CAST. I WANT TO KNOW HOW THE IMPERFECTIONS OF THE PRINTED MOLD AFFECT THE CAST.

