

boardsport technologies enterprise
final report



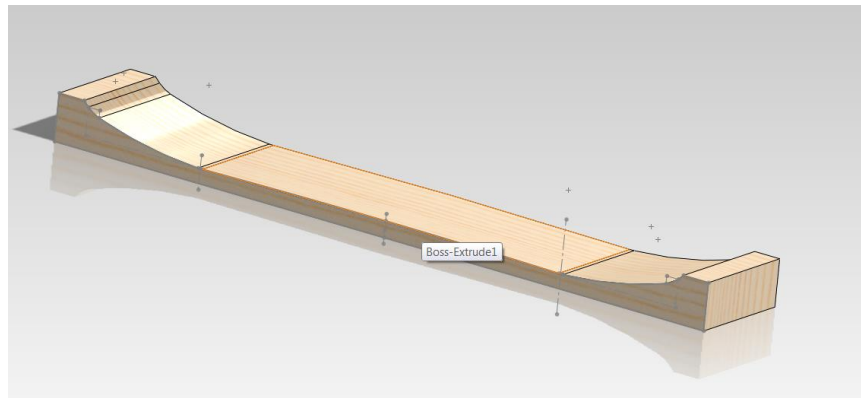
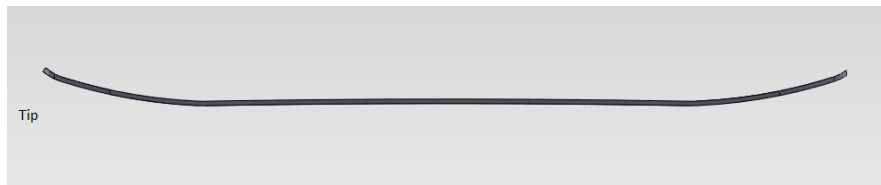
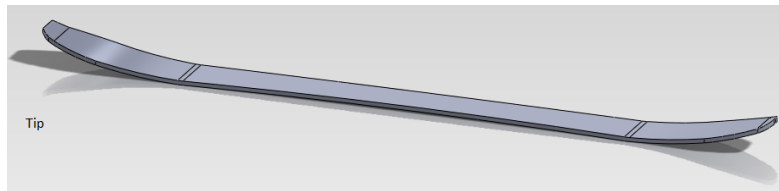
Project Title: All-Mountain Skis

Team Members: Alex Cain

Objective: To design a pair of skis and the die to go with it for the press.

Model and Design Description:

The skis were designed to be an aggressive all-mountain ski, as well as a one ski quiver, suited more towards the midwest, i.e. Mont Ripley and Mount Bohemia. They have equal rocker in the tip and tail while still having camber underfoot. They have a directional 18 meter sidecut that is set 1.5cm back from true center of the ski, to give them good carving abilities. Their dimensions are 135-102-130 to give them enough float in powder while retaining good edging. They also incorporate early taper in the tip and tail to prevent hooking in softer snow conditions.



Construction Steps:

I started the design process by modeling the ski in UGNX 7.5. From there I was able to take the rocker/camber profile to model the die for pressing the skis. Then I generated code to mill the die in the HAAS. The die needed to be milled in halves due to its length. The die blank was then built using 2x6s that were individually planed then vertically laminated together, to the desired width, and then the top and bottom were planed again.

Construction Issues:

There were problems with the code a few times that set us back in finishing the project.

Final Product Testing Results:

The die has yet to be used due to the press breaking.

Recommendations For Next Time:

Have the code checked multiple times by several different people before scheduling time for milling.

Hours Worked On Project: 50+

Final Cost: \$0

Deviation From Original Budget: \$0