Because the chinguard prototype last week did not come out well, a slightly new shape was designed. A slightly different layout was made using a cardboard cutout. The cardboard cutout was then folded around the shell prototype to verify that its dimensions would like up properly and the ear pieces would meet at the proper places. The cardboard cutout was then laid over the Kevlar and numerous traces were made for each layer of Kevlar. These pieces were then going to be cut out, until another problem developed: the shears were becoming dull and could barely cut. Another pair of shears was then ordered the next day so that we would be able to continue our various prototypes.

The EPS cutting of the blocks was also started this week. Unfortunately another problem was run into. The hotwire tool was very flimsy and poorly made. The connections did not hold the hot wire in a secure place and it would move as it would cut through foam. In addition, after a few minutes of use, one of the hotwire connections, which was made out of plastic, broke and ultimately disabled our tool and our continuation of going any further at this point. Not only was the tool hard to use, but in general, the technique was very difficult to cut the EPS to the exact shape of the shell that we needed. It was really a guess and check method that involved holding the shell up to the EPS block after every few cuts to verify that the shape was forming properly. The first step we took was cutting the block into a cylinder roughly larger than the size of the widest part of the helmet: its base. Once this was done, the other dimension and rounding was begun to be chiseled off. The helmet was then placed on top of the EPS shape after every few cuts to see how far it would fit into the shell. Very small pieces had to be taken off at a time to avoid too much from being taken off and ruining the whole EPS piece.
At this point, the tool broke and a soldering job would be required to fix a wire. As for the broken plastic pieces, we would just not doing anything about those and leave to wire free to bend and guide with our own hands. Below is a picture of the started EPS block.