Plan for Fabrication:

The first and most important thing that we have to do in regards to fabricating our latch and hinge is to talk to Russ. Russ will have ideas on what we should machine first. He can also help us with ways to attack the machining process. We feel that since we have both sets of drawings completed that we can start fabricating both the latch and the hinge at the same time.

Some key things we need to accomplish when fabricating is to make sure that we label each part as we machine them, and to make sure that we have enough time to make all of our parts. Past senior design groups have warned us about taking too long in the machining process.

Testing Plan:

In order to test our latches and hinges, some preliminary DFMEA analysis needs to be done to pinpoint where our weak points are going to be. After making sure that they will hold up in theory we will have to test them in real settings.

Our hinge will be attached to our test stand, and a weight will be hanged from the blade attachment. We will then open and close our hinge a large number of times. Our test stand should hold up to the max allowable load, such that we can test our hinge for the max allowable load.

The latch will be placed on our mock up door. We will then be able to test its opening and closing ability. We can also use force when opening and closing the latch to test for some shock resistance.