

## Wednesday Challenge Form

Group Members: Armen, Garen, Jess, Edgar

**Problem Statement:** Pick an adhesive from many choices such as superglue and duct tape and use it to get the highest amount of sheer force between two small bars. The sheer force is measured by The Splitter.

**Approach:** Our group picked the duct tape adhesive because we thought it would work best to keep the two bars together. We first used the duct tape over the small holes that were supposed to be kept open, but it wouldn't fit in The Splitter. So, we had to rip off the duct tape and start again. We also did not use as much duct tape because we believed that stacking duct tape over each other would be redundant. So, we used a minimal amount of duct tape to keep it together and it was sufficient enough to keep the bars together.

**Solution:** Our adhesive was able to hold two gallons of water. The rest of the group got this score as well. We did not weigh past two gallons of water because of how dangerous it would be. Mr. Miller told us that superglue would have held over 1000 pounds. The epoxy adhesive would have held over 2000 pounds.

**Lessons Learned:** If I were to do this again I would have picked the epoxy adhesive because it would have held the most weight. We picked duct tape and it wouldn't have held as much weight as the epoxy.