Boomilever Tips and Tricks

- Use balsa wood for everything except the base. It has the best weight to strength ratio for this type of competition
- For the base, use a thin sheet of bass wood laminated with glue over a thicker sheet of balsa.
- Sand the back of your base to make sure it sits flat against the wall.
- Weigh all of your balsa wood when you get it. Try to keep the lightest and straightest for the final product.
- Start by building something heavier that can hold all of the weight. Then work on making your design lighter while still keeping strength.
- Test test and test again.
- Keep a record of past tests to see if your designs are improving or not
- Take a video of your tests. This will help you determine if the boomilever broke due to weight or due to an error such as allowing the bucket to swing.
- Use only one drop of wood glue per joint. Too much will add unnecessary weight
- If a joint is continuously breaking during testing, maybe add a bit more glue.
- Draw out a stencil of your design and use that to build your model.
- If possible, build your own testing facility. Look up videos online of actual boomilever tests to get the design for your testing facility. Don’t worry about the constant flow of sand, for your tests you can just scoop it in.
- Make sure to build your boomilever slightly past the requirements. If it is short on competition day you will be DQed
- Sand off any glue that sticks out of the joints