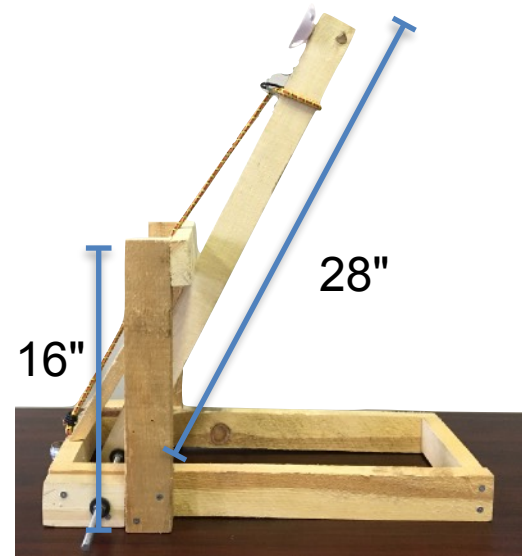


Safety Note: This is a powerful catapult. The prototype featured in this documents uses a bungee cord as its power source. Use safety precautions when building and using your catapult. You must wear safety glasses when firing in case the bungee cord or another component breaks.

Special thanks to APEGNB for assisting with the design and assembling the kits and LeGresley Home Building Centre - Home Hardware for supplying all the materials for the mini-catapult kits.

### Design Guidelines

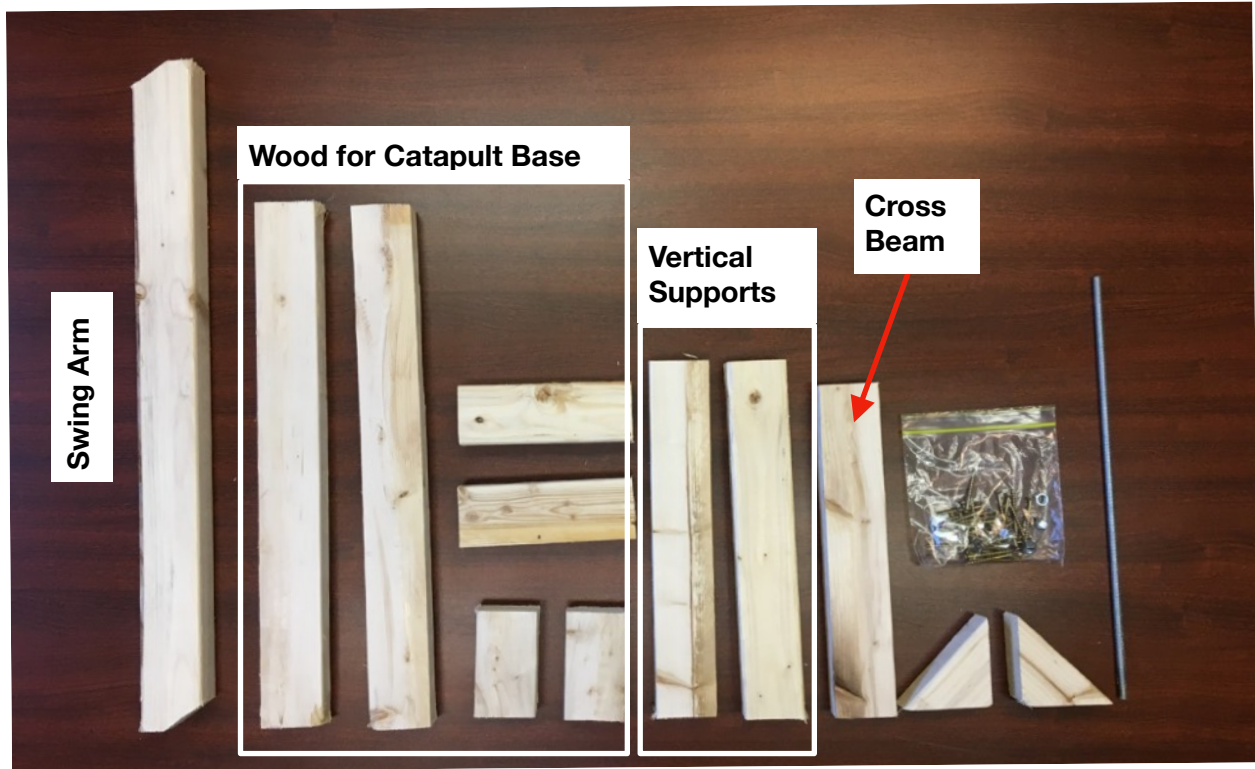
- Catapult base must be no higher than 16 inches (excluding swing arm).
- Catapult swing arm must be no longer than 28 inches.
- A bungee cord is the suggested power source.
- No electronic assistance or air pressure is allowed.
- All elementary and middle school teams will receive a mini-catapult build kit.
- High school teams will need to source their own build materials.
- Teams may choose to modify their kit or build their own catapult (trebuchets, crossbows or slingshots will not be allowed to compete).



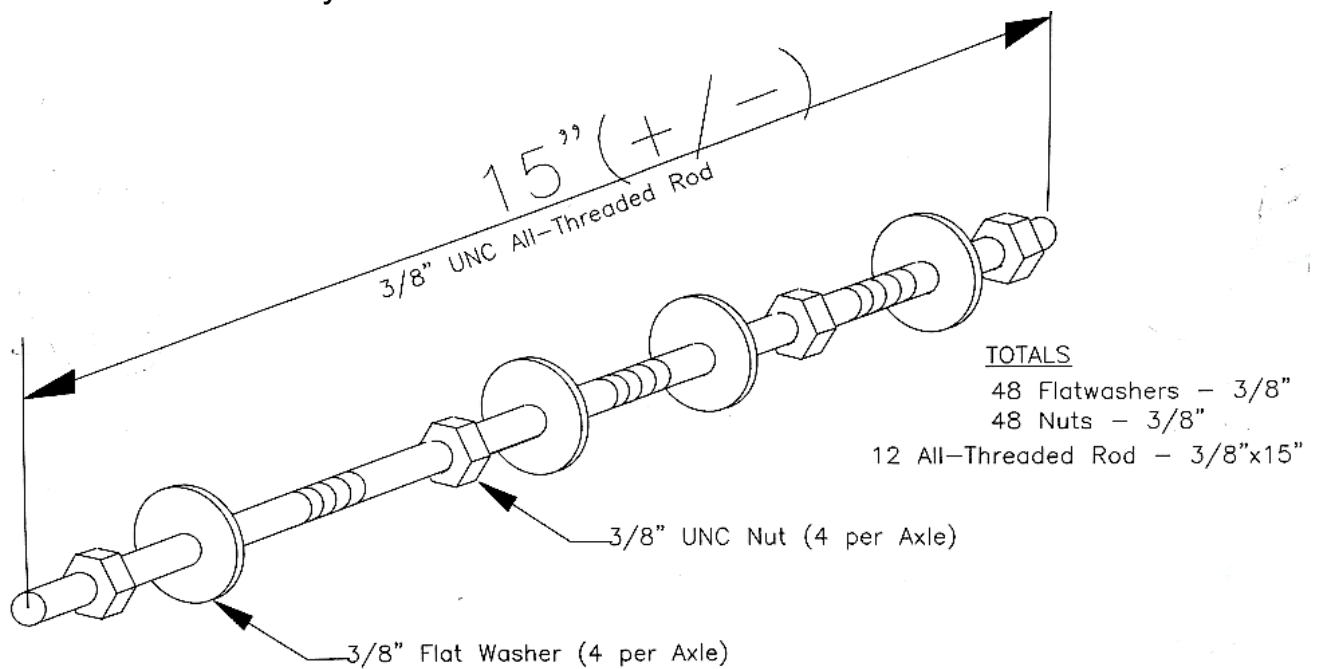
### Tips and Suggestions

- A drill will be required to complete assembly of catapult kit.
- A bungee cord is the *suggested* power supply for your catapult (not included in build kit).
- Pre-drill holes to prevent wood splitting (additional materials will not be supplied).
- A winning catapult will be able to consistently hit a target 8 meters away.
- The mini-catapult design was based on the Backyard Ogre Catapult from Storm the Castle (<http://www.stormthecastle.com/catapult/backyard-ogre-catapult-index.htm>). The site has detailed assembly instructions and videos.

Build kit includes (provided for elementary and middle school teams):



Axle Shaft Assembly:



## Mini-Catapult Prototype

The prototype catapult was built using a mini-catapult build kit. Additional items on this prototype, not included in the kit, are the bungee cord used as the power source, the pipe clamps used to attach and adjust the bungee cord, the plastic ball cut to hold the projectile and the rubber fixed to the swing arm and cross beam to reduce damage after repeated launches.

