Kite Project

The Thundercats

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Kite Design

- For our kite we based the measurements off of a Delta Kite that I already owned.

- While measurements were not exactly the same the angles and proportions all were.

- We felt this option was best because if we design the Kite off an already working model our design would have a better chance of working
The kite had two supports running down the sides at roughly a 45 degree angle. The spine was run down the center of the kite. The final piece of the kite's "skeleton" was the crossbar attached at the perpendicular to the spine at its center.

This design does not have support at the bottom because it leaves a flap at the bottom to replace a tail. This wide flap helps when the kite is turning because it catches air easier and controls it better.
Kite Design cont.

- At the bottom of the kite a keel was the kite to help create an air catch to induce lift on the kite.

- The design of the keel is a 30-60-90 triangle with the long side running along the spine of the kite. We strengthened the hole in the keel where the string would run through by adding two layers of tape to eliminate chances of the keel ripping.
Building The Kite

- After coming up with dimensions for our kite, we went into the workshop, cutting dowel rods to specific length for the two front bars, the crossbar and the spine.
- Using tape, we assembled the frame to be lightweight, yet sturdy.
- We cut two equal sheets of the tarp-like material to fit over our frame, and attached it using a minimal amount of tape.
Building The Kite

- We created our spool system by drilling a hole through a thick dowel rod, tying a knot, and then by wrapping an adequate amount of string around.
- Using tape, we created makeshift walls to keep the string focused to one area.
- The other end of the string was then attached to the keel we created on the bottom of our kite.
Test Flight #1
Test Flight #2
Modifying Our Kite

- After trial and error test, we realized that the top of our kite was not securely fastened with enough tape, which was causing drag.

- We fixed this problem by taping the loose sections down, which stabilized the kite while flying.