



**We Can Hear You
Now (A):
A Customer Survey
Design for a Six
Sigma Project at
Crutchfield Corp.**

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Group Activity Summary

MEETING 1:

Set a SMART goal for the project.

Created a thought map and split up the project times and goals for each meeting.

Tested out the catapult to get a better idea of the equipment.

MEETING 2:

Discussed the parameters we were interested in testing out

Decided what settings were going to be used for the experiments and began testing

MEETING 3:

Set up a target area and launch area as defined by the project parameters.

Began testing out our 2^3 design when disaster struck and our catapult arm broke. :(

Luckily through the power of duct tape we were able to get the catapult working again!

Finished our tests for the 2^3 design and tested 2 replicate runs.

Ran the data through JMP 10 and used it to create a model in MATLAB

Ran tests on hitting a target randomly showing up in the target area using our model.



SMART Goal

Specific



Measurable



Realistic



To consistently hit within 3 inches of a randomly located target by developing a model to predict the distance of a projectile using Six Sigma methodology by April 14th. (And to win the competition, of course!)

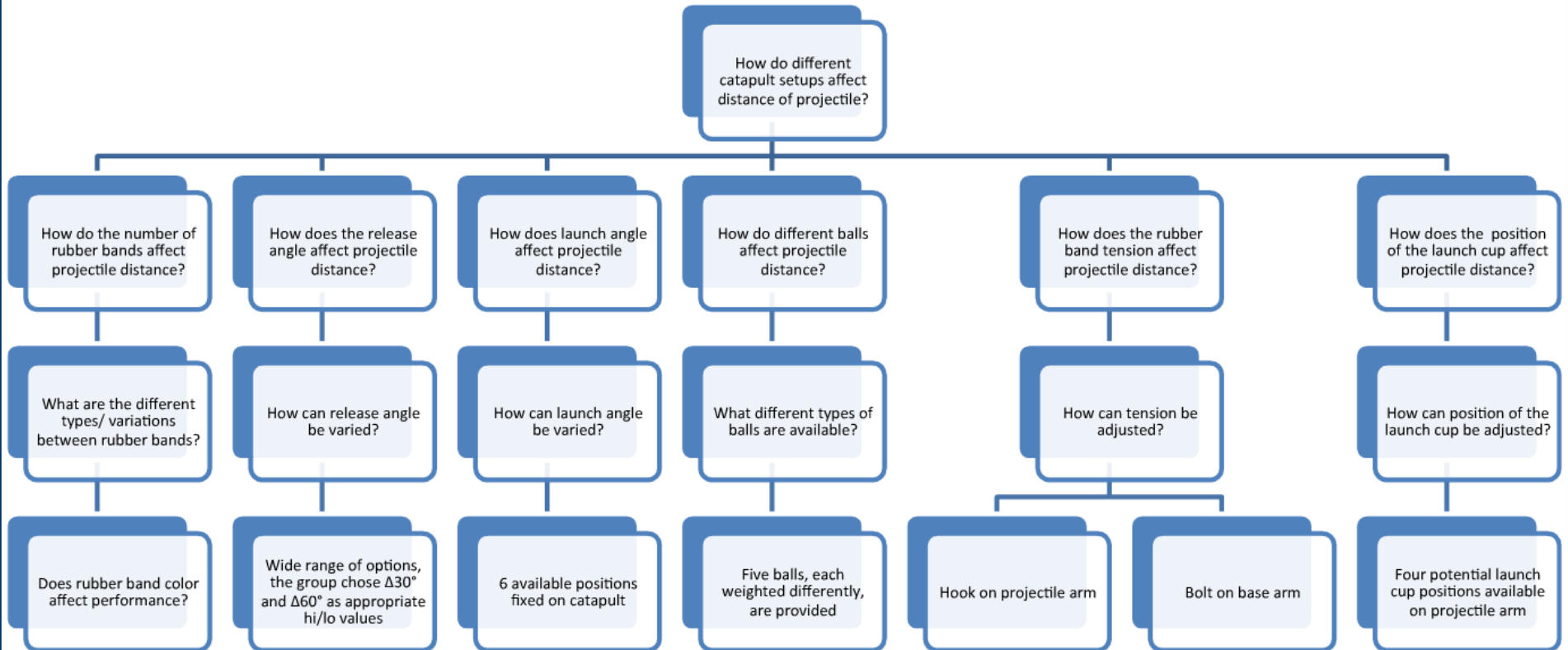
Time-bounded



Agreeable

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Thought Map



Stop Angle Levels



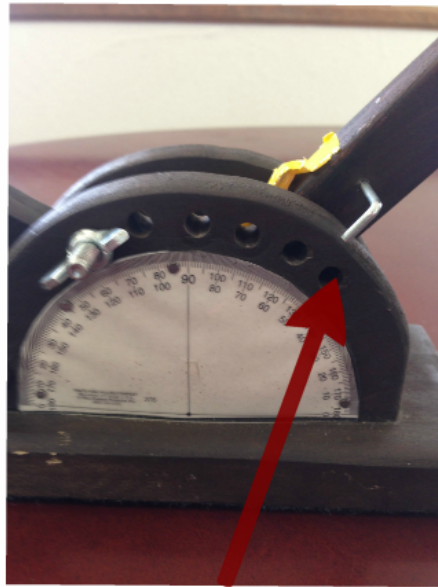
High



Low

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Launch Angle Levels



High: 60 degrees Low: 30 degrees

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Tension Levels



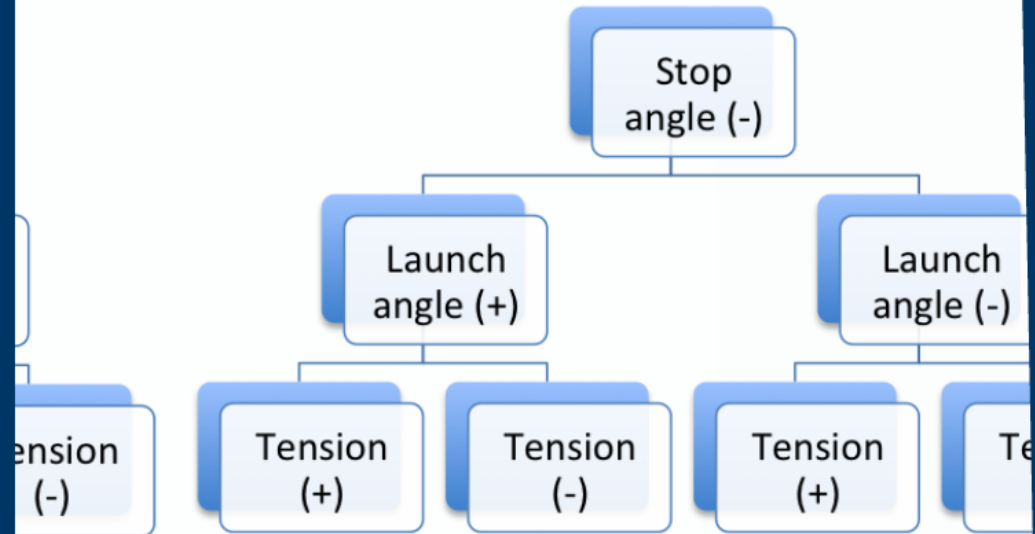
High



Low

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Sampling Tree



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