

Tetrahedral saddle for MMS "Trigger"

This is a pattern to make a tetrahedral saddle for Trigger. Trigger is the MMS horse, and Trigger loves triangles! (and Trigger loves Tetrahedrons!)

Cut out the saddle on the heavy lines (it's stronger if you keep the stirrups attached to the girth). Then fold on the dashed line across the middle and also across the blue and red circles (at the bottom of the stirrups). Then underneath your horse tape the girth together (or use a paper clip).

You may use any horse that's the right size for your Trigger. This one is a finger puppet horse from WildRepublic®

Trigger is special for MMS because we can't send all the data down that we collect. So we use triggers to tell us that we have measured something very interesting, and we should send that data down to the ground to analyze. It's like measuring temperatures... if the day is warm all day long, you may only need the average day and night temperature. But if a cold front comes through, you want to know when, where, and how strong that cold front is, so you'll know how quickly the weather will change. The four spacecraft talk to each other and decide which data is the most interesting, and send that data down for scientists to analyze and understand.

Here's how our Trigger looks with his saddle on! One vertex is the saddle horn, one is the back of the saddle, and two are near the stirrups.



Each of the points on the saddle represents one of the MMS spacecraft, (at the vertex of the tetrahedron) and each point represents one of the four Maxwell's equations. We've given them silly names to help us remember the Maxwell's equations: Divvy, Divby, Curly, and Mo.

For more on tetrahedrons and Maxwell's equations, go to <http://MMS.rice.edu/tetrahedron/>

