What: Hand held boards to be used at competitions to display a message.

How: 24 foam boards, a huge number of markers, rulers, creative solutions, and very dedicated team members.

Just after our Ann Arbor completion, the Media/PR subteam got to work on a secret project. For about two weeks, five students worked in a spare classroom at Skyline High School. With a week to go before the trip to FIRST Nationals in St. Louis, they presented to the parents and students.

In large sporting events, you sometimes hear of large groups of people holding up parts of a sign, creating a single uniform picture. A giant, crowd-powered billboard made from dozens of signs. The Media/PR had the same idea and wanted to bring it to the FIRST audience at FIRST Nationals.

Our first step was to analyze the number of signs we could use. In 2011, we had a team of around 30 active members, but not everyone would be in the audience at the same time. We eventually estimated that about 24 members would be in the stands when we held up the signs. From there, we choose to make the signs double sided, one side showing the team logo and the other congratulating FIRST on their 20th season.

We created a proof of concept out of four pieces of poster paper and a huge number of markers. To design it, we first measured the size of each piece of poster paper. Then we used a “20th Anniversary of FRC” logo and Adobe Illustrator to divide into four parts, each the size of the pieces of poster paper. Then, we transferred the image onto a piece of transparency paper used for an overhead projector and projected the image against the wall. Members of the Media/PR team then used markers to trace the outlines onto the boards. Afterwards, they colored in the parts using markers.

After the overwhelming positive feedback about the proof of concept, the sub-team got to work on making twenty four two sided boards for people to hold up in the stands. We choose to go with a “20th Anniversary of FRC” logo on one side and our own team logo on the other. To make the boards durable enough for continued use, we used foam boards instead of paper. We also numbered the signs to keep them organized.

Like before, we traced the outlines of the colors and then colored in the gaps. However, a problem that came about early on was that humans drawing larges swatches of the same color caused some areas to be darker than others. One of the students came up with an idea that we should use rulers to create even lines of color. Using rules both cut down on time spent re-coloring lighter areas and made coloring itself a lot easier. After a solid week of afterschool coloring, we had all the boards colored on both sides.

During that Saturday’s meeting, parents came in to attend an information session about the students traveling to St. Louis for the FIRST Championships. At the end, the Media/PR team presented the boards to the delight of the parents. Students had a chance to try out the board system as well. Though students loved the signs, a problem with coordination arose. Nearly every student was a different height making the signs all be at different heights and angles.

To fix this problem, we decided to tape the signs together column-wise so that in the stands it would be easier to keep the signs arranged correctly. It also made organizing flipping the signs easier as an entire column would flip at the same time. It also made it so that if some students were missing, no students would have to hold two boards. After several tests, we had a finished product.

After the grueling trip from Michigan to St. Louis, we got to try out the signs at competition and they worked beautifully. We were able to secure enough room to hold up the boards without obstructing other teams and be visible from at the field.

The idea was simple enough and with enough hard work from teammates, we were able to put on a show not seen before at a FIRST competition before.