

VEXpiration: An Inclusive Approach to Robotics

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Poster Description:

Community. Growth. Competition. These words represent the VEX Robotics experience. Community: in VEX, full of passionate individuals that collaborate with one another to create and innovate in the field of robotics. Growth exemplifies the improvement of our skills while designing and experimenting with new ideas. Competition exhibits the creativity and strategy that are encouraged by VEX Robotics tournaments.

Because VEX Robotics includes many age groups, our poster displays both younger and older robotics teams. To specifically represent VEX IQ and VEX VRC, we chose blue and red themes, respectively, for the building materials and tools. We drew a majority of these banner items online, including parts commonly used while building our VRC robots and parts we remembered using in VEX IQ robots.

Design Process:

The first step in our design process was creating a list of elements to include in our poster design. One of our main goals was to design a poster with minimal white space to use the given space effectively. Because our poster is supposed to be relatable to all ages, we wanted to include images that depict younger and older teams that participate in VEX robotics. The text overlaying these images would represent the core ideals of a robotics team experience, revolving around the themes of cooperation, building, community, mentorship, growth, or creativity.

Our second step was designing the poster on Canva, and the third was asking for constructive criticism from our teammates. Our earlier designs separated the poster into three sections based on the aforementioned categories: community, growth, and competition. However, this style of separation, seen in Figure 1, while aesthetically pleasing, wasted too much space. To eliminate this white space, we enlarged the images and forewent separating them with lines in the second draft (Figure 2).

Because our teammates gave positive feedback on our initial titles, images, and subtitles, we kept those aspects of this design the same (Figure 1). We also filled the white space on the right with the border of tools and materials we designed for the “growth” category in the early design (Figure 1). We decided to use a banner with tools and parts (wrenches, screwdrivers,



Figure 1 - An early draft of our poster

nuts, bolts, etc.) because we wanted to stick with a consistent, easily recognizable theme for any audience.

Our final design, Figure 3, combined the early design's image positions with the later design's image format. This layout leaves little empty space and gives the poster movement by layering the images to create a sort of visual narrative within our poster. By breaking up the linear structure of our later design, we created a sense of rhythmic movement that emphasizes our text and images. Also, because the images break up the banner section, the patterns appear more unique due to the overall decrease of certain pieces from said pattern.

We then discussed the differences between Figure 2 and Figure 3 with our teammates in order to determine which version we would be submitting to the Poster Design Online Challenge. They favored the second design because the VEX and Robot Events logos were easier to read and the borders looked more distinct when separated by the images. This final layout conveys the values of an authentic VEX robotics team, representing the core elements of the fond memories every team member will leave this experience with.



Figure 2 - A later draft of our poster



Figure 3 - The final design of our poster