A Beginners Guide to Field Lining

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Picture this – You pull into Cumberland Park, hit the tailgate button and fling your carefully packed folding chair onto your shoulder to head out to the field.

As you set your chair down on the grass (in the perfect spot, so you can see every moment of your child's game) your toes hit that crisp painted white line. It's the boundary that marks the spectators from the players, the offense from the defense. It's an essential part of all youth sport games played on athletic fields.

But how does it get there? The answer might surprise you.

Just one of the full 11v11 size soccer fields (those are the big ones) utilized by our league takes five volunteers about three hours to line. Multiply that by all of the soccer fields throughout the city and the lining and painting goes on for days - not to mention a learning curve for newbies.

Back to geometry class. During these "field days" our volunteers follow a template for each size field, laying out strings at various lengths. Each line is then stretched between posts to form the outline of the field. To make sure the fields are square, a diagonal line is stretched to create a triangle. Remember the Pythagorean Theorem? If done correctly, the corner of the triangle should be exactly 90 degrees. Volunteers then repeat the process by leaving the diagonal line in place and moving the strings to create the other two lines. Once the outline is created, they paint over the lines using spray paint. Sounds simple, right?!

As you can image, it's a painstaking process. That was until Optimus Primer came along.



Optimus is the name of the league's GPS field lining robot and the little green guy is a life saver. What used to take three hours, now can be completed in a little more than 40 minutes. With the aid of a base station, we simply load our field template into a hand-held tablet and press play.

Optimus has not only saved time (and the sanity of our volunteers), but also reduced our paint costs by 20 to 30 percent. Additionally, the accuracy of the robot is less than ½ inch which now makes our fields Mia Hamm worthy.

In fact, our robot has become so popular he's decided to help out around the lacrosse fields this spring.

We just hope he remembers who made him famous.

Want to see Optimus in action? Check out this video: https://soccer.hsesports.org/Default.aspx?tabid=1198587