Our team spent two practices figuring out these math equations to make a functioning program for our mecanum wheel drive. Mecanum wheels require a complex program to be able to move diagonally. These are similar to Omni wheels, which allow the team to slide sideways, but instead they allow the robot to move diagonally. For this years VEX Spin Up challenge we chose to try mecanum wheels for our drive system so we could move across the field at an angle, which would benefit us in defense.