Soccer Coach Testing

Our program is going to display a field and two soccer teams of 11 players. The program will have built in formations that the “coach” (user) will be able to select, and have the program move the players into those formations. There will be some starting formations, like “Metodo” and “Pyramid”, and standard plays like corner kick and free kicks.

A lot of that functionality will happen in the GUI, so this week for testing we are ensuring that the formations move each player to where they are supposed to be. Each formation will be read from a configuration file that has a list of each player, their position, and their location. We’ll test that these config files can be loaded properly. The formation class will store a template of players with the positions and locations relevant to that formation. When a particular formation is called or started, the actual players on the field will have their positions copied from that template. We’ll test that when a formation is started, each starting location is correct. We’ll test the basic move function that moves a player from a starting location to a new location, based on a velocity and an angle. Then we’ll check each players’ movements after the formation is started, and the players are supposed to actually move.

As for the opposing team, or the “computer players”, we’ll be implementing a random walk-type functionality. We’ll give them general directions that they should be traveling, so we’ll test that they travel in a certain direction a certain number of times.

Our test class is also heavily commented do further elaborate.