Create an SVG image of a Soccer Field

1. Copy and Paste the 1200x800 grid from:
   http://steamcoded.org/lessons/grid1200x800.svg.txt

2. Add style attributes to the group element with opacity:0.5;
   fill:green;stroke:white;stroke-width:2px;

3. Add a rectangle element. width="100%" height="100%"

4. Add a rectangle element: start at (15,15) width:1170, height:770
   style: stroke-width:12px;

5. Add a circle element centered at (140,400), radius: 100

6. Add a rectangle element: start at (20,180) width:180, height:440

7. Add a circle element centered at (140,400), radius: 2

8. Add a rectangle element: start at (20,300) width:60, height:200

9. Add a circle element centered at (600,400), radius: 100

10. Add a circle element centered at (600,400), radius: 6, style: fill:white;

11. Add a path element drawing a line from (600,15) to (600,785)

12. Add a circle element centered at (1060,400), radius: 100

13. Add a rectangle element: start at (1000,180) width:180, height:440

14. Add a circle element centered at (1060,400), radius: 2

15. Add a rectangle element: start at (1120,300) width:60, height:200

16. Add 4 path elements, each with style: fill:none; and path definition:
    d="M50,20A30,30,0,0,1,20,50"
    d="M1150,20A30,30,0,0,0,1180,50"
    d="M20,750A30,30,0,0,1,50,780"
    d="M1150,780A30,30,0,0,1,1180,750"

Add a Soccer Play to the Soccer Field

1. Determine coordinates for players on the field

2. Add a path element with id="p1", drawing lines to each player involved in the play.

3. Add a defs element around the play path element

4. Add a symbol element as a child element of the defs element with attributes
   id="player" overflow="visible"

5. Add a path element as a child element of the symbol element
   d="M-10,-10L10,10M10,-10L-10,10"
   style="stroke:red;stroke-width:5px;stroke-lincap:round;"

6. Add a group element with id="play1" that will have child elements for the play

7. Add the players as child elements of the group:
   add use elements with x,y coordinates determined in step 1, and xlink:href="#player"

8. Add a circle element with radius:10, style:fill:white;stroke:silver;
   Note: the circle element will have child elements

9. Add a animateMotion element as a child element of the circle with attributes:
   dur="3s" repeatcount="indefinite"

10. Add a mpath element as a child of the animateMotion element referencing id: p1,
    i.e. xlink:ref="#p1"

Add more Soccer Plays creating a Playbook

1. Create a style element as follows:

   ```
   <style type="text/css"><![CDATA[
     #play1 {display:none;}
     #play2 {display:initial;}
   ]]>
   </style>
   ```

2. Copy group with id="play1" and paste, then change the id="play2"

3. Change the mpath reference to #p2

4. Add a path element with id="p1" to the defs element

5. Reposition players as needed for the play

6. Change the styles in step 1 for play1 and play2 to switch plays
   i.e. display:initial will show the play, display:none hides the play