

# Plan Iteration 2

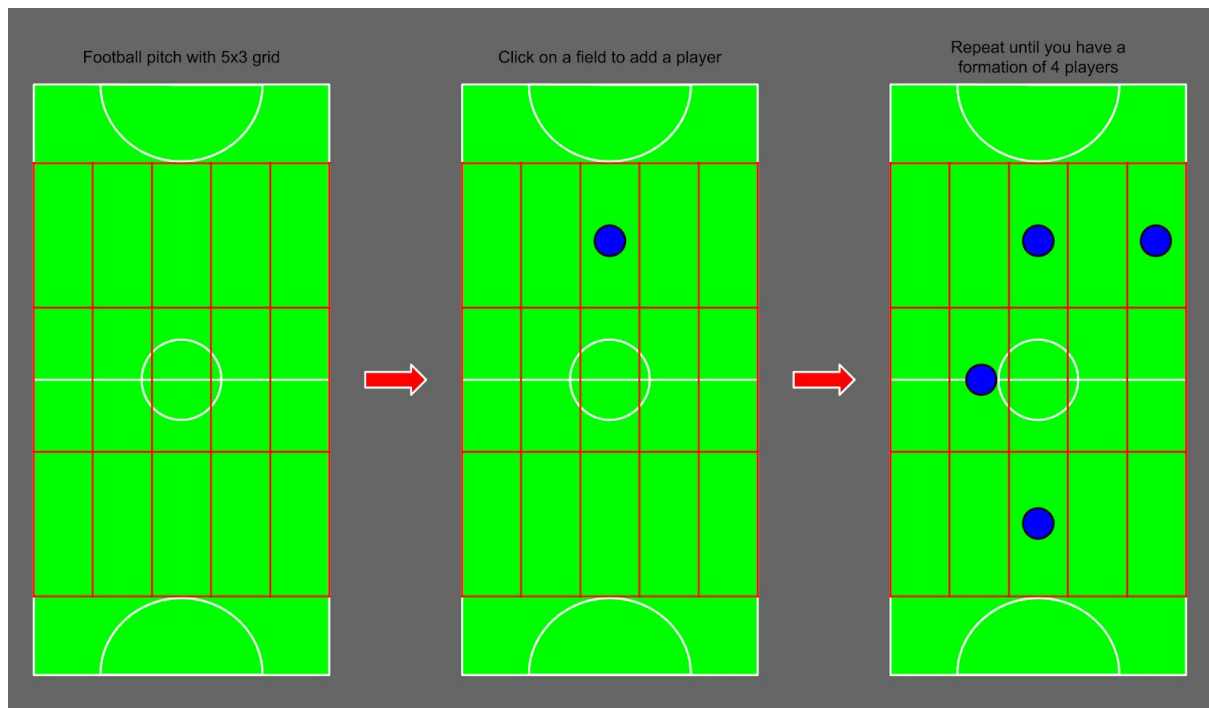
Indoor football strategy simulation



Alex Lievense	Project leader	alexlievense@gmail.com
Tsvetelina Chantalieva	Team member	cvetyx@gmail.com
Kheir Almosally	Team member	amosally.mhd@gmail.com
Nguyen Viet Hai	Team member	hainv201@gmail.com
Nguyen Thi Thu Thao	Team member	thuthaovinh@gmail.com
Nguyen Dinh Thanh	Team member	thanhf98@gmail.com

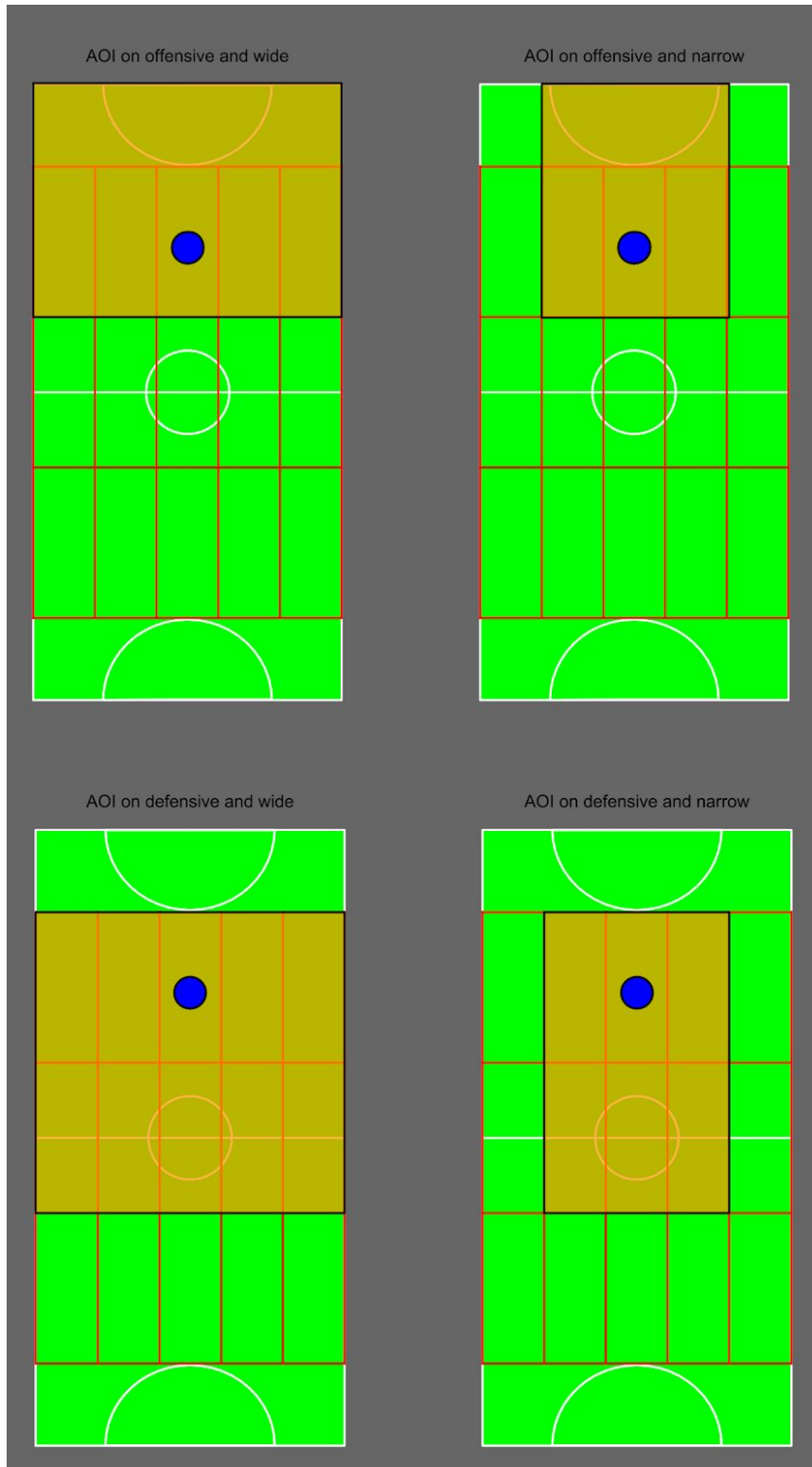
# Features

- Custom formations:
  - The field will contain a grid of 3 rows and 5 columns.
  - You can select the default position of a player by entering clicking on that area in the grid.
  - No more than 4 players can be added.
  - You can remove a player from a position by clicking again on the existing player.
  - Demonstration:



- More advanced strategies, more advanced than iteration 1:
  - The user can select a custom formation in the way explained above.
  - The user can specify offensive and defensive playing style.
  - The user can specify wide or narrow playing style.
  - Man marking will NOT be part of the strategy in this iteration.

- AOI (Area Of Influence)
  - Every position has a predefined Area Of Influence (AOI from now on). This AOI can not be set by the user.
  - This AOI differs based on the state of the team (offensive/defensive) and the width of the playing style (narrow/wide).
  - Demonstration with the center forward position:



- AI features
  - A player should be able to decide to pass the ball to a fellow player.
  - A player should be able to decide to kick the ball towards the goal.
- Physics features
  - When a player decides to pass or shoot, the player should generate a certain force on the ball in a specific direction. The ball should move according to this force put on the ball.
  - Custom formations have to be translated to default coordinates for players on the field.
  - The strategy decides the AOI of a player on a certain position, this AOI has to be translated to an area in the field during the simulation.
- Simulation
  - Add a time limit to the simulation
  - Show current time
  - Add events to the simulation (goal, kick-off, start, half-time, end)
  - Export results to PDF and CSV
  - Resize the application

## Work division

Feature	Assignees
Custom formations, using a 3 by 5 grid	Alex, Thanh
Add options for offensive and defensive playing style to the strategy management section	Alex, Thanh
Add options for wide and narrow playing style to the strategy management section	Alex, Thanh
Determine the AOI for every position for each combination of strategy options	Alex, Thanh
Implement AOI in running simulation	Alex, Thanh
Add AI functionality to decide to pass the ball to another player	Hai, Thao
Add AI functionality to decide to kick the ball towards the goal	Hai, Thao
Add a time limit to the simulation	Kheir, Tsvetelina
Show current time of the match	Kheir, Tsvetelina
Add game events to the simulation	Kheir, Tsvetelina
Display the result of one match after it finished	Kheir, Tsvetelina
Export the results to an external file (PDF, CSV)	Kheir, Tsvetelina
Resize the application	Hai, Thanh