**CENGBALL**

**PROJECT CONTORIUM**

**WEEKLY REPORT 05.11.13**

 This week, we focused on game rules, simulation details and functionalities that the user will have. Since the next week we will be working on project design, these details are important to think on. We organized the details according to their stableness. The unstable details are the ones that can be changed later on working process, while the stable details are the ones that most probably, will be the same in the whole process.

**Unstable Details**

* **Number of Players:** There will be 5 players in each team. This number will be optimized in developing and testing processes. It will be optimal so that the game is fun.
* **Length of a match:** What is decided is that the game will not be 90 minutes long. The time will be decided in developing and testing processes. Also, the decision of whether there will be a timeout or not will be made on the processes. There can be a timeout, if we decide to allow the users to patch their codes in this timeout.

**Stable Details**

* **User Side:**
1. **Player Characterization:** Users will be able to name their players and give them kit numbers. The names and the kit numbers will be shown on the display screen.
2. **Team Characterization:** Users will be able to name their teams and choose a kit color. Their teams will be represented with those colors and names.
3. **Skill Points:** Users will have a total number of skill points to distribute among the players. Also, it will be possible to distribute points to the different skills of the players. With this way, the user will be able to create strikers, defenders, midfielders etc. We believe that this will bring fun to developing a team.
4. **Memory:** Users will be able to reach a limited percept sequence. The percept concept will be explained in time criteria of simulation part. Since the percept sequence will be logged in order to visualize later, it will be easy to reach to them. With this way, a user can understand the movements of his/her opponent and develop a counter movement. This limit for reaching the percepts will be decided in developing process.
5. **Functions on ball:** In 2D simulation, the users will be able to shoot the ball with a power value and a direction. Also, they will be able to carry the ball with them to a position.
6. **Environment:** It will be a fully observable, sequential and dynamic environment to the user. A user will be able to get the positions of all the players in the pitch while positions of the players and the ball are dynamic. Also, as said in the memory part, the user will be able to reach the sequence of movements.
* **Simulation Side:**
1. **Time:** It will be a turn-based simulation. In each turn, the simulator will ask to the user codes to make a move. This process will be held in order. The simulator will check the movement of the user code and do the movement if it is valid. Then, the simulator will ask to the other user code to make its move. The movements will not be dependent of real time. They will be dependent on turns. For example, a player will have the opportunity to move x pixels in each turn and this will define the player’s speed. The functions of the movement operations of the user codes will return a percept. A percept of a desired movement will be a combination of the new positions of the players, actions on the ball and actions of the players. In each turn, a percept will be returned to the simulator and the simulator will check whether it is valid. If it is valid, the simulator will accept the percept and simulate the new turn. Also, it will log the movement of the user code to the replay file. Moreover, a user will be able to get the current and limited past percepts in each turn.
2. **Chance Factor:** There will be a chance factor of every move of every player. This factor will be calculated according to the skills of the player. This factor will affect the moves. Also, it will bring some reality to the game.

Also, we decided on our first aim of the game. First, we will aim to develop a 2D simulation, since it is easier to achieve. After, we will try to add a third dimension with cross operation, heading etc. But the first prototype will be in 2D.