

---

# Slam!

**Inês Moital**

Instituto Superior Técnico  
ines.moital@ist.utl.pt

**Nuno Costa**

Instituto Superior Técnico  
nuno.pinto.costa@gmail.com

**Abstract**

*Slam!* is a highly competitive and engaging multiplayer physics-based sports game with minimalistic mechanics where teamwork is crucial. In this demo, the player will be able to compete against the opposing team with the objective of scoring a total of five goals in a multiplayer skirmish.

**Author Keywords**

Physics-based game,  
3D, Animations,  
competition,

cooperation.

**ACM Classification Keywords**

H5.m. Information interfaces and presentation: Design

**Motivation**

This is a great time to be a sports-games enthusiastic. Currently we are blessed with an array of franchises that will make the more distracted have a second look at the screen before they realize it's a videogame they're watching. There is great AI, realistic animation and physics, and almost photorealistic presentation. Usually, in these games the gamer will be able to choose a team whose players have different strengths and weaknesses, so, for example, in a football game such as FIFA 13, Cristiano Ronaldo will surely outpace most players, have more power and shooting accuracy, etc. As a result, when competing against another human gamer(s), we tend to pick the best possible team because we are not only dependent on our own skill as gamers, but also on the skill and perks of the players from the team we choose. Of course, in order to be able to get the most out of each player, the gamer needs to have remembered a huge list of button combinations that will enable him to do numerous tricks, different kind of passes, chip-shots and so on... But the main drawback from these AAA games is, arguably, that cooperating with more humans in the same team tends to be sloppy and detracting from the immersion, as usually the gamer is given control

---

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

dynamically of a player during the course of the match and he never really knows which gamer will have control of the next player. This wouldn't be a problem if the gamer only controlled one player, but then, since there are 22 players in a football field (20 if we leave out the goal-keepers) the gamers would spend most of the match watching the AI play.

### **What is *Slam!*?**

*Slam!* proposes a new and refreshing experience where the gamer will have to rely only on its own skill and on the skill of its human team-mates to succeed, completely leaving out the luck factor and the attributes and perks of the players aside. Also, its inherently a multiplayer game where the gamer controls only one player.

Instead of a huge button combination backlog to keep in mind, the game is designed to be easy to pick up and start playing. The gamer has only to move the player using the control stick, and press a button to shoot the ball, which is used both to score and to pass to a teammate. There is also no "magnet" gluing the ball to the player. If he wishes to move the ball forward either he pushes the ball or shoots it. If the player stops pushing the ball, the ball will continue to move until it collides or friction makes it stop. This approach will probably leave out the "lone wolf" due to its difficulty in dribbling past the opposing players, but it is designed to be rewarding and engaging for those gamers who enjoy team-play, communication and cooperation, as these traits will be crucial to succeed.



**Figure 1.** Just before kick-off, and the puck doesn't seem too happy about it

*Slam!* is a physics based game where the metaphor for the controls and overall feel is Air Hockey. When the gamer tries to control the puck in *Slam!*, he should feel as if he was trying to control a puck in Air Hockey.

There is also no rules such as offside or throw-ins to break the pace of the game. If the ball touches the sideline, it will reveal a force-field that bounces the ball back into play.

The game is still under heavy development and currently there is only a local multiplayer mode which is optimized to 2vs2 play.

### **Presentation**

*Slam!* features animated characters that react with the events of the game. The players breathe faster if they are moving faster, have big eyes that are always focusing on the ball, they celebrate goals and get sad when concede a goal.



**Figure 2** When the ball hits the sideline, a force-field keeps it in the court.

The puck also has a personality of its own. It has eyes that blink, look around and show tiredness, with many more animations are currently planned.

This approach is intended to introduce the game to a broader audience and grow a charm and humor of its own. Our aim is to put a smile on the gamer face.

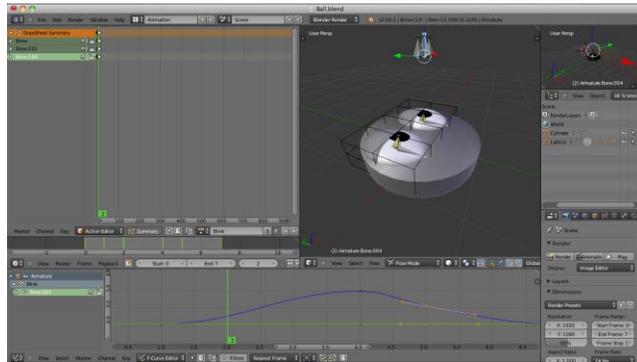
### **Development**

*Slam!* is being built using Unity4 and blender over the course of six months of very hard weekend work by two elements with distinct but overlapping roles: producer, lead designer and animator; and lead programmer modeler, rigger and artist.



**Figure 3** Blender was used to model and animate both the players...

Because the project initially started out within the context of a game development course in IST, we had colleagues playtesting frequently weekly or bi-weekly which resulted in a very incremental, user-centric approach to our game design in which several features were added/removed according to the feedback we gathered and it allowed us to better fine-tune the game.



**Figure 4** ...and the puck

### Features currently in development

Based on the feedback we gathered we are working on some more tweaks to the gameplay, such as a sprint functionality which will have a cooldown period, a single-player mode where the gamer will be able to engage in different challenges and will have the opportunity to practice his skills and, of course, the online multiplayer mode with smaller courts optimized for 1vs1 vendettas and larger courts for, at least, 3vs3 battles.

### Demo

We made available both a playable demo and a brief video.

The video shows a 2vs1 playtesting session with very inexperienced gamers. Nevermind the freezes in the

### Reception so far

*Slam!* has got very positive feedback from its playtesters. They have praised the game's physics, charm and have generally felt engaged and wanting to play more. There is still a ton of work to do, but feedback so far shows us that we are in the right track

video. It's due to the capturing software and not the game itself.

To play *Slam!* you will need three xbox360 controllers for windows, (or the wireless adapter). One gamer will control the player using the WASD keys to move around and the Space key to shoot. The others will use the analog stick to move and the A button to shoot.

In the future we will have more control options.

The link for the video and the demo is in the following URL:

<https://dl.dropboxusercontent.com/u/6591103/Slam%21.zip>