
EINDHOVEN UNIVERSITY OF TECHNOLOGY

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DBL - ASSIGNMENT FOR GROUP 3

Report

Program Software Science 2012-2013

Professional Water Buffalo TradeMark

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1 Game items explanation

1.1 Players

The game is a multiplayer game and is played with 2 to 6 players. Every player has his own robot with a unique color.

1.2 Flags

In the game there are several flags. In case of 2 to 3 players there is 1 flag, otherwise there are 2 flags. The color of the flags may not match with a color of a robot.

1.3 Bases

There are as many bases as there are players. At the begin of the game the bases are neutral (so not the same color as a robot or flag). During the game the bases get the color of a robot. This will be explained further in this document.

1.4 Blocks

The blocks are an important part of the game. Blocks are additional items in the game. When some block is picked up its effect should be activated immediately! All possible effects will be explained later in this document. Besides this, new blocks should be placed at a random position in the map every 15 seconds.

2 Game Description

2.1 General Description

The goal of the game is to collect as many flags as possible within a given time. When the game starts all robots will spawn at a random position. This will also be the case for the flags. However they cannot be spawned within a base or on top of another flag. The robots can collect points by grabbing a flag and bring it back to their own home base. As already said; at the beginning of the game the bases are neutral but when you bring a flag to a base it becomes your base. Every robot can have at most one base. In case you try to bring a flag to another base than your own, the flag **will not** be dropped. When you bring it to the right base the robot gets a point and the flag will respawn at a random position. The whole game is played real-time.

2.2 Weapons

Of course it is not the case that you just pick up a random flag and walk back to your base without any trouble. Every robot has its own health value on scale from 0 to 100%. It is possible to attack other robots with a weapon. The closer you are to a robot the more effective your attack will be. When the health of a robot is decreased to 0%, the robot dies and is disabled to play for 10 seconds. Afterwards it will respawn at its own base (if a base is not assigned, it will respawn at a random position). If the robot had a flag when it was killed, it will be dropped at the place where the robot died.

2.3 Environment

The game takes place outside. The game has a standard map which means that the bases are always at the same place. In the environment must contain several trees, rocks, a water buffalo and a river. The rest is up to you.

2.4 Time

Every round has a playing time of the song Gangnam Style by *PSY*. The song will be played at the background during the game and has a length of 4 : 13 minutes.

2.5 Blocks

On the field there will be some blocks available for pick up. These blocks will contain additional actions.

- *Map*: You see where the flags, bases and robots are at that moment (so its static). There will be an arrow so you know where you are at that moment.
- *Weapon upgrade*: When you have this block the power of your weapon will be upgraded with 30% for 60 seconds.
- *Base shuffle*: Every base is connected to one robot as explained above according to where the first flag of that robot is dropped. The base shuffle means that all base colors are shuffled so everyone gets another base.

- *Flag respawn*: If there are some robots carrying a flag, this flag will be dropped and respawn randomly. The block works for all flags that are carried at that moment.
- *Additional time*: The time will be increased with 10 seconds, also the music will be placed 10 seconds backwards. This has to be done in such a way that the player does not think it is a lack in the game (for example using a scratch sound).
- *Speed up*: The robot runs faster.
- *Health up*: The health is 100% again.
- *?*: You get a random action.

3 Visual

Everything should be shown in 3D.

3.1 Robots

This subsection is separated in two parts. View of the player and how players see other robots. Let's start with the player view. The person will only see two hands, doing the smooth Gangnam Style move (See Figure 1). When someone shoots it is must be available that you are shooting, you can fill in yourself how you show this. The robots see the other robots dancing the Gangnam Style but how they look like is up to you.

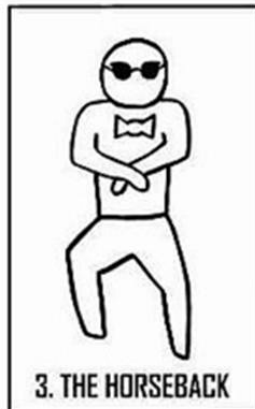


Figure 1: Gangnam Style

3.2 Environment

As we have described before the game has to be in an outside environment with some properties like trees, rocks, a river and a water buffalo.

3.3 Weapons

The weapons should be integrated in the robots.

3.4 Blocks

The blocks should look like (as the name already suggests) blocks. Inside the blocks there should be something that makes clear which type of block it is, for instance, an image.

3.5 Score and Time

At the top of the map there should be a bar which contains how many points every robot has at the moment. Also a time-left timer should run.

3.6 Base

Each base should look like an elevator booth (as seen in the Gangnam Style clip).

4 Possible features

Below we show some possible features to make the game even better.

- Put a mountain in the environment. It is up to you to decide if it is possible to walk over this mountain.
- Several maps, selected at random at the start of the game or start a voting round for 10 seconds at the start of the game so the players can choose.
- Adding extra blocks.
- More Gangnam Style elements.
- Multiple weapons.
- Possible interaction with the water buffalo.
- When a flag is not found for a long time there appear more and more map blocks such that they find the flag faster.
- When you walk in a river, you lose some health.