***SLIDE 1***

Good afternoon everyone! Before we begin, I have one small favor for you. If you have any questions, please, ask them at the end of the presentation. We will definitely answer all of them, thank you.

So, for those who don’t know me I’m Artyom. This is my team – Vadim and Nicolas. We are from 21 21 5 group and let us introduce our project ‘TV-Tennis’. Today, we’re going to talk about how we created our game.

***SLIDE 2***

We'll start from a little story why we decided to make this project. We’ll go on by introducing you to the hardware and software parts. At the end, we will demonstrate our game.

***SLIDE 3***

I have a question for you. Have you ever played tennis? If so, you definitely ever wanted to play this game, but all your friends were busy. It’s a familiar situation, isn’t it? Weren’t we programmers, we would have just been upset. But we decided to make a tennis-like game that can be run on your computer or laptop at any time. How does it work?

***SLIDE 4***

So, let's move on to the main scheme. On the slide you can see the screen, scoreboard, joystick, video system and controller. Memory mapped io is located here, we will describe it later. Let's start in order.

The first thing I would like to talk about is the video chip drawing the game on this screen.

***SLIDE 5***

This is Tsunami-1, it has 5 inputs, and 5+8 outputs. Those 32-bit outputs draw bats and ball on the screen.

***SLIDE 6***

Look at these two chips. The first one draws a ball, the second one draws bats.

***SLIDE 7***

We reviewed the video chip and I'd now like to move on to the next part. The kinematic controller is the main module in the whole scheme. First I would like to focus on the speed of the ball.

We have made 3 different angles of the ball. On the slide you can see how the speed of the ball changes when it hits each of the sectors of the bat.

***SLIDE 8, 9, 10, 11***

All these chips control this. You can read the documentation in case you want to learn more about all the chips.

And Vadim will tell you about other important features of our controller

**GAME**

Hit the ball

the ball flew at a blunt angle – тупой

the ball flew at a sharp angle – острый