

main

install load listener on window

```
export let crc2: CanvasRenderingContext2D;
export let canvas: HTMLCanvasElement;
export let imgData: ImageData;
let form: HTMLFormElement;
let button: HTMLFormElement;
let button2: HTMLFormElement;
export let jerseyColor1: String = "";
let jerseyColor2: String = "";
export let speed: number = 0.05;
export let ballControl: number = 20;
export let moveables: Moveable[] = [];
export let ball: Ball;
export let ballArray: Ball[] = [];
export let playerAtBall: Player;
let positionTeams: number[] = [[x position of an player, y position of an player]];
let jerseyNumbers: number[] = [numbers of the players];
let positionRefs: number[] = [pos x of an ref, pos y of an ref];
let refType: string[] = ["Ref", "RefOben", "RefUnten"];
```

load

handleLoad

```
_event: Event
  canvas = document.getElementsByTagName("canvas")[0];
  crc2 = canvas.getContext("2d");
  let field: Field = new Field;
  getImagdata of canvas
  select form and add Eventlistener "change"
  select button and add Eventlistener "click"
```

change

handleChange

click on button

showField

_event: Event

let formData: HTMLInputElement = <HTMLInputElement>._event.target

[if: formData.id == "jerseyColor1"]

jerseyColor1 = formData.value

[if: formData.id == "jerseyColor2"]

jerseyColor2 = formData.value;

[if: formData.id == "sliderSpeed"]

speed = Number(formData.value);

[if: formData.id == "precision"]

ballControl = Number(formData.value)

_event: Event

form.classList.add("invisible");
button.classList.add("invisible");

createPlayer()

createBall()

Add Eventlistener on canvas, button2, button3, document

window.setInterval(update, 50)

click

clickBall

click on button2

newPlayer

click on button3

newPlayerT2

click

deletePlayer

keypress

showValues

createPlayer

[for: i=0; i < 21]

player = new Player

PPlayer.draw();

moveables.push(player);

[for: i = 0; i <= 2]

ref = new Referee

ref.draw();

moveables.push(ref);

createBall

ball = newBall

ball.draw()

ballArray.push(ball)

_event: MouseEvent

[for i = 0; i <= 1]

positionNewPlayer = random position

playernew = new Player()

moveables.push(playernew);

das selbe für die Funktion newPlayerT2()

deletePlayer

let taste: boolean = event.ctrlKey

[if: taste == true]

let rect: DOMRect = canvas.getBoundingClientRect();
let x = _event.clientX - rect.left;
let y = _event.clientY - rect.top;

[for: [i, moveable] of moveables.entries()]

let diffVec = new Vector(moveable.position.x - x, moveable.position.y - y);

let length = diffVec.length();

moveables.splice(i, 1);

playeronBall

for: player of moveables

[if: player.contactToBall() == true]

playerAtBall = player

[if: playerAtBall.team == "Team1"]

playerNumber = document.getElementById("PlayerT");

playerNumber.innerHTML = player.jerseyNumber;

playerNumber.style.backgroundColor = player.jerseyColor

return false

return true

_event: MouseEvent

let taste: boolean = _event.ctrlKey;

[if: taste == true]

let rect: DOMRect = canvas.getBoundingClientRect();
let x = _event.clientX - rect.left;
let y = _event.clientY - rect.top;

ball.click(newVector(x, y);

showValues

event: KeyboardEvent

let infoKey: string = _event.key;

[if: infoKey == "r"]

[for: player of moveables]

player.show()

update

crc2.clearRect(0, 0, crc2.canvas.width, crc2.canvas.height);

crc2.putImageData(imgData, 0, 0);

[if: ball.ballMove == false && playeronBall() == true]

player.draw();

player.move();

player.draw();

[for ball of ballArray]

ball.move();

ball.draw();