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# PlayCanvas E2E (the quick version)

Joao Ruschel • 11.04.2021

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# Structure

- Introduction
  - What is **PlayCanvas**?
  - **Phase 1: setup**
    - Asset Management, Templates
    - Launching & Editor Link
  - **Phase 2: Interactivity**
    - Scripting, Events, Physics
    - Animation System
    - Debugging
  - **Phase 3: Polishing & Publishing**
    - User Interface
    - Audio
    - Publishing to the World!
  - Wrap up
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# Who am I



Joao Ruschel

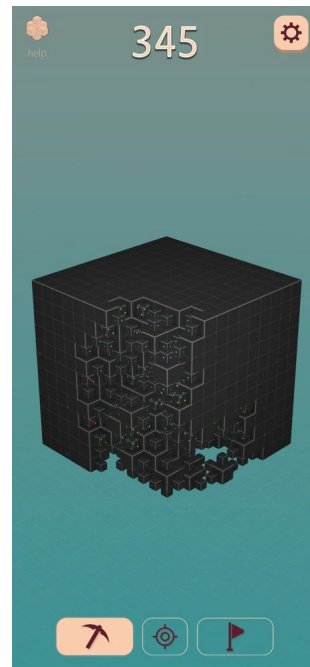
- Software Engineer @ **PlayCanvas**
  - *jpaulo* on Forum
- Ex-Amazon **Alexa**
- Indie game developer
  - STAP
  - Minar



dejohn\_paul



jpauloruschel



Minar

STAP



PLAYCANVAS





# PLAYCANVAS



PlayCanvas: the web-first game engine



PLAYCANVAS

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# PlayCanvas

## Engine

- Core functionality
- Open-Source
  - <https://github.com/playcanvas/engine>
- **335 kb** *zipped* download
- Available as stand-alone
  - NPM
  - Minified
  - Build from source

## Online Editor

- <https://playcanvas.com/>
  - Collaborative by design
  - Powerful backend
    - Asset processing
    - Texture compression
    - Model conversion
  - Free tier
  - Unlimited free hosting for publishing apps and games
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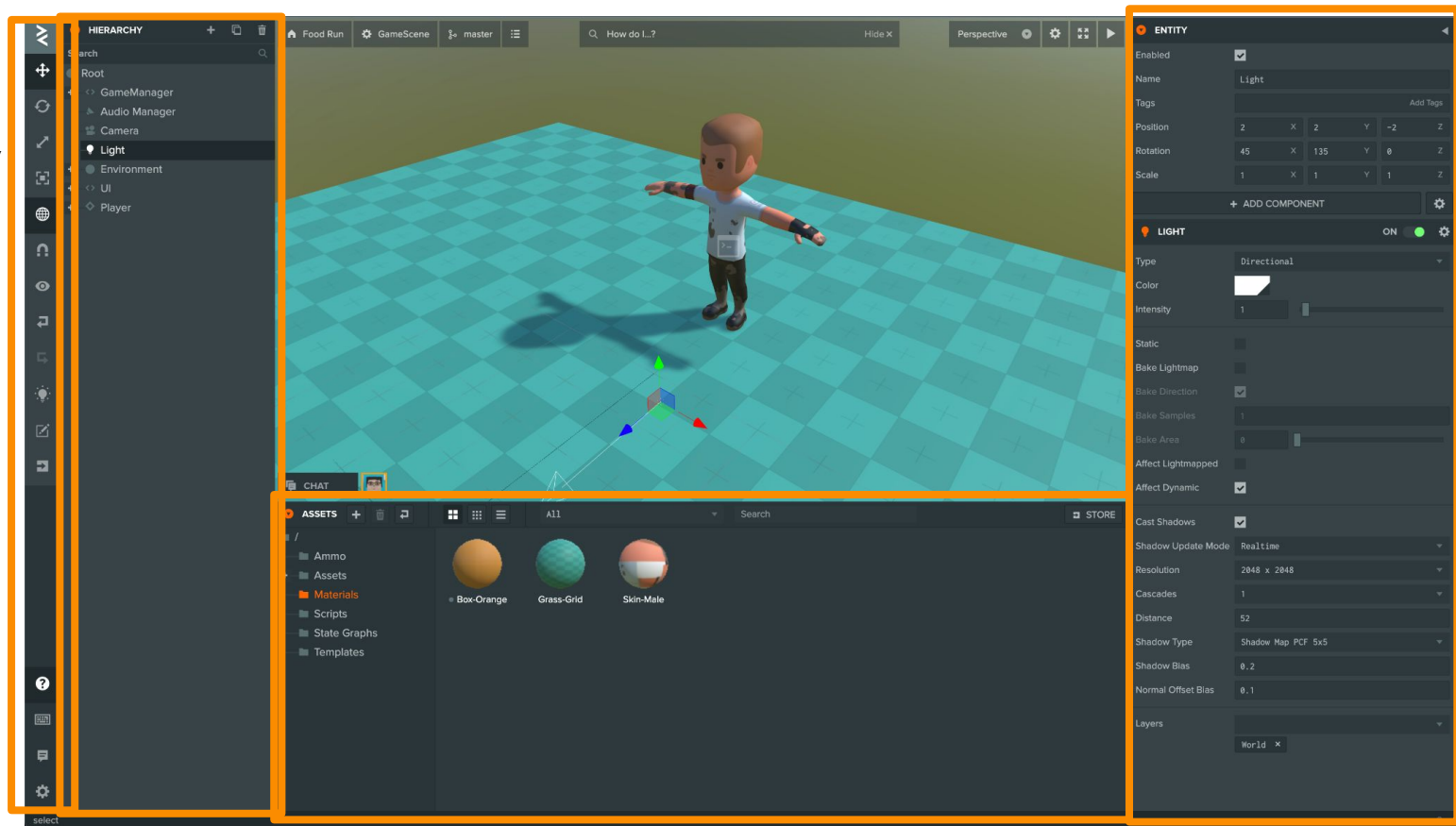
# Features

- Online code editor with built-in IntelliSense
  - Powerful backend
  - ZERO 'build time'
  - WebXR support
  - Fully-featured *git-like* **Version Control System**
  - Editor is **multi-platform** and a **2.1MB** zipped download
  - UI, Audio, Animation system, Physics, Templates
  - Advanced graphic features (*lightmapper, PBR, shadows, ...*)
  - Support channels: Documentation, Forums, Discord
  - ...
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Hierarchy

Inspector

Toolbar



Project Assets

The PlayCanvas Editor





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## Useful Links

- Made with PlayCanvas
    - <https://github.com/playcanvas/awesome-playcanvas>
  - Examples browser
    - <https://playcanvas.github.io/>
  - API reference
    - <https://developer.playcanvas.com/>
  - Tutorials
    - <https://developer.playcanvas.com/tutorials>
  - Forum
    - <https://forum.playcanvas.com/>
  - Twitter
    - <https://twitter.com/playcanvas>
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# Let's build something!

<https://playcanv.as/p/dCoHvsRY/>

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TIME

SCORE: 0

UI

Ground

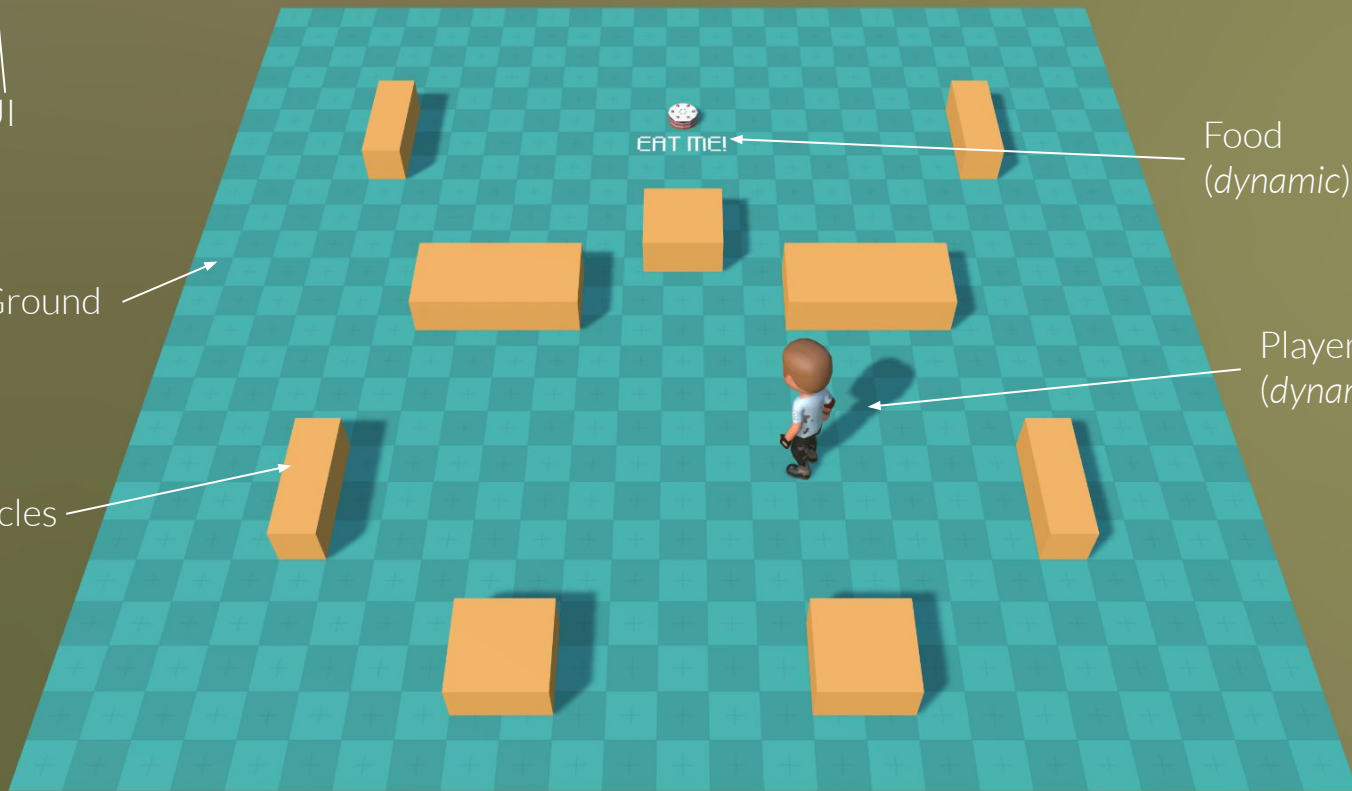
Obstacles

EAT ME!

Food  
(dynamic)

Player  
(dynamic)

Food Run



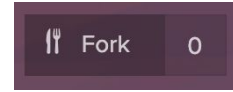
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# Phase 1

# Project Setup

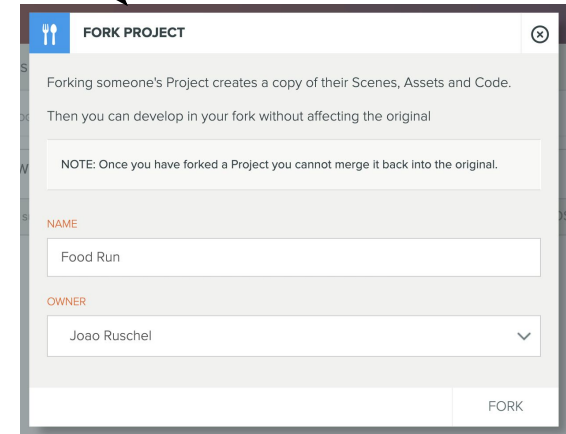
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# Phase 1



- Assets
- Templates
- Launching
- Editor Link

1. Open the link "Food Run Starter Kit"
  - a. <https://playcanvas.com/project/910590>
  - b. Contains all base assets
2. **Fork** the project
  - a. This will create your own copy of the project
  - b. It's your project to do as you please!
3. After forking is complete, open it in the **Editor**



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**Let's go!**

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# Phase 1 - Wrap Up

- Creating and Managing **Assets**
  - Creating and Using **Templates**
  - Testing in the **Launch Tab**
  - Using the **Editor Link**
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# Phase 2 Interactivity

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# Phase 2

- Scripting
- Events
- Physics
- Animation System
- Debugging

To continue, choose one:

1. Continue from your current project

**OR**

2. Fork the “Food Run - Phase 2” project
  - a. <https://playcanvas.com/project/910606>

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**Let's go!**

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# Phase 2 - Wrap Up

- Creating and using **Scripts**
  - Attaching, Detaching, and Firing **Events**
  - Using **Physics** collision and rigidbody
  - Creating **Animation State Graphs** and setting **parameters**
  - **Debugging** code and graphics
    - **ChromeDevTools**
    - **SpectorJS**
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# Phase 3

## Polishing & Publishing

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# Phase 3

- User Interface
- Audio
- Publishing

To continue, choose one:

1. Continue from your current project

**OR**

2. Fork the “Food Run - Phase 3” project
  - a. <https://playcanvas.com/project/910630>

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**Let's go!**

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# Phase 3 - Wrap Up

- User Interface
  - Audio
  - Publishing
- Creating and Editing **User Interfaces**
  - Using **Audio**
  - **Publishing** for free using PlayCanvas hosting
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# Wrap Up

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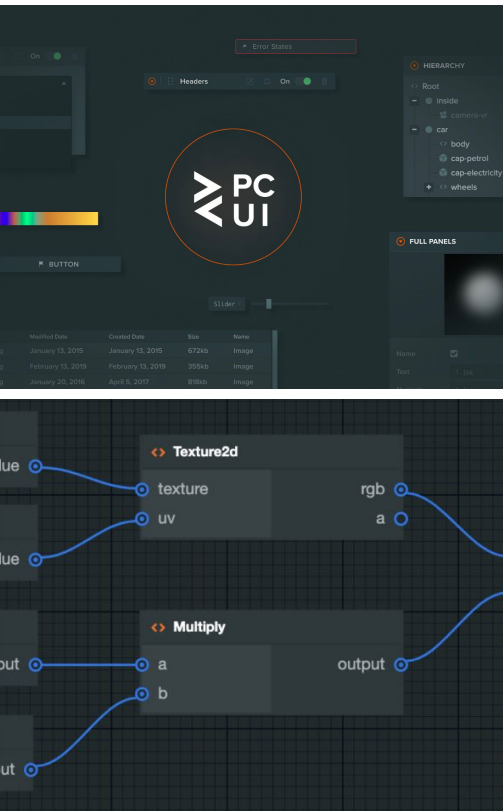


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## Wrap up

- Build a full game using PlayCanvas
  - Publish it to the world!
  
  - Follow us on **Twitter!**
    - <https://twitter.com/playcanvas>
    - [https://twitter.com/dejohn\\_paul](https://twitter.com/dejohn_paul)
  - Contribute to Open-Source
    - <https://github.com/playcanvas/engine>
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# Extras

- PCUI - PlayCanvas User Interface Framework
  - Lightweight HTML5 + CSS3 for complex front-end web tools
  - Used by the Editor to render its UI
  - <https://github.com/playcanvas/pcui> & NPM
- PCUI-Graph
  - Extension to PCUI for node-based UI
  - Used by the Editor's Animation State Graph editor
  - <https://github.com/playcanvas/pcui-graph> & NPM
- glTF Viewer
  - <https://playcanvas.com/viewer>
- Internal Beta: **Shader Editor!**

Thank you!



PLAYCANVAS



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# Slide Templates

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# Progress - Topic area 1

## Accomplishment 1

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## Accomplishment 2

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# Progress - Topic area 2

## Accomplishment 1

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## Accomplishment 2

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# Attention areas

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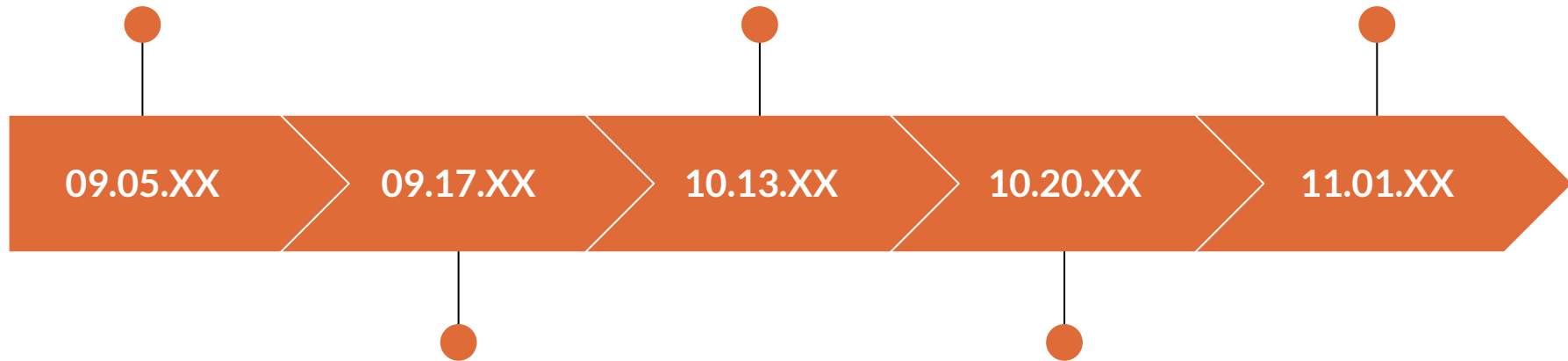
## Risk 2

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# Next steps

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## Assignment 2

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## Assignment 3

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# Goals for next meeting

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