

Scene Interaction

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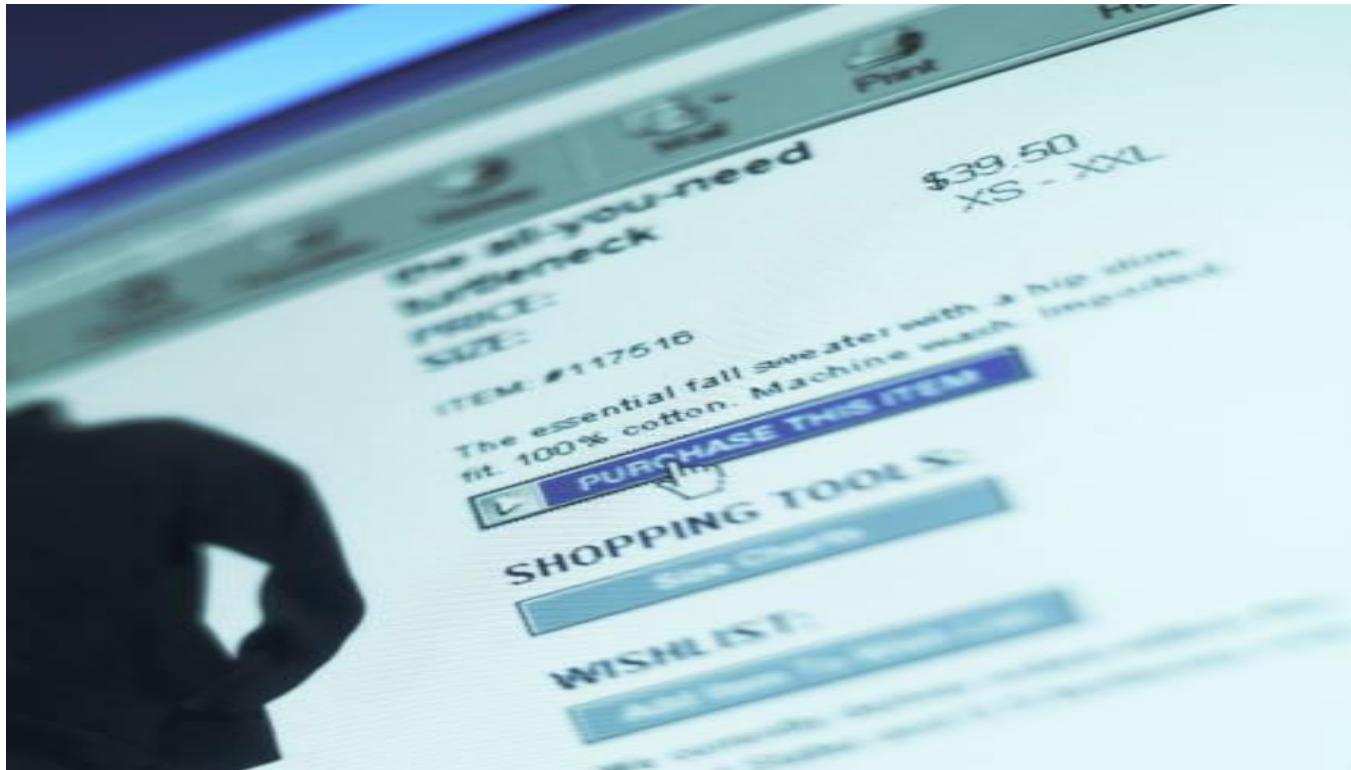


pluralsight 
hardcore dev and IT training

Agenda

- Page Events
- Control Libraries
- Collision Detection
- Physijs Physics Engine

Page Events



Controls

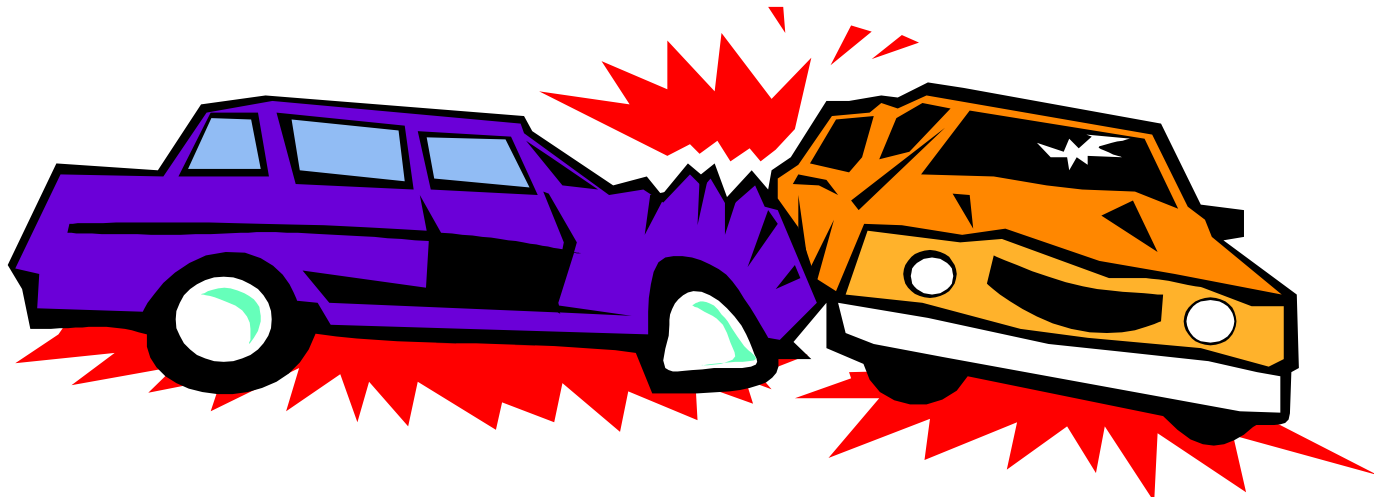


Control Libraries

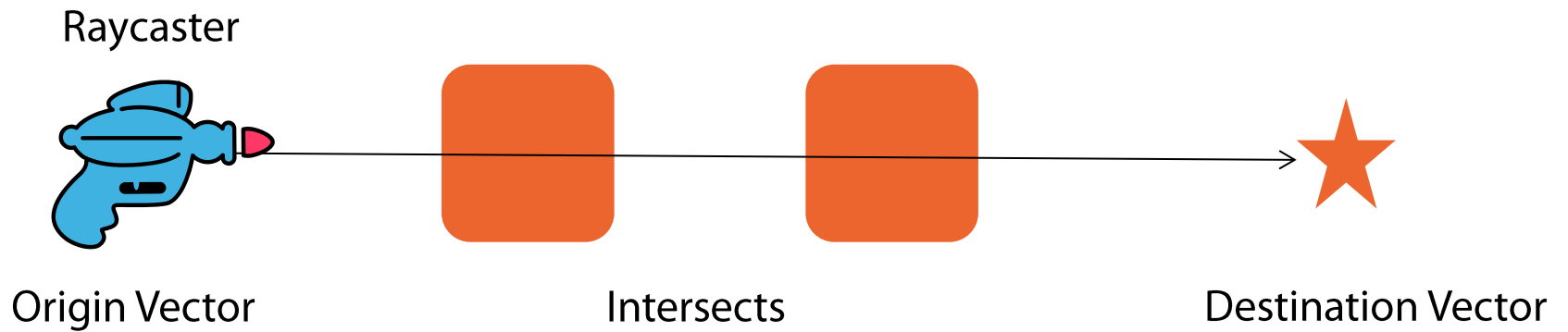
Libraries in examples\js\controls

- DeviceOrientation
- Editor
- Fly
- FirstPerson
- Oculus
- Orbit
- Path
- PointerLock
- Trackball
- Transform

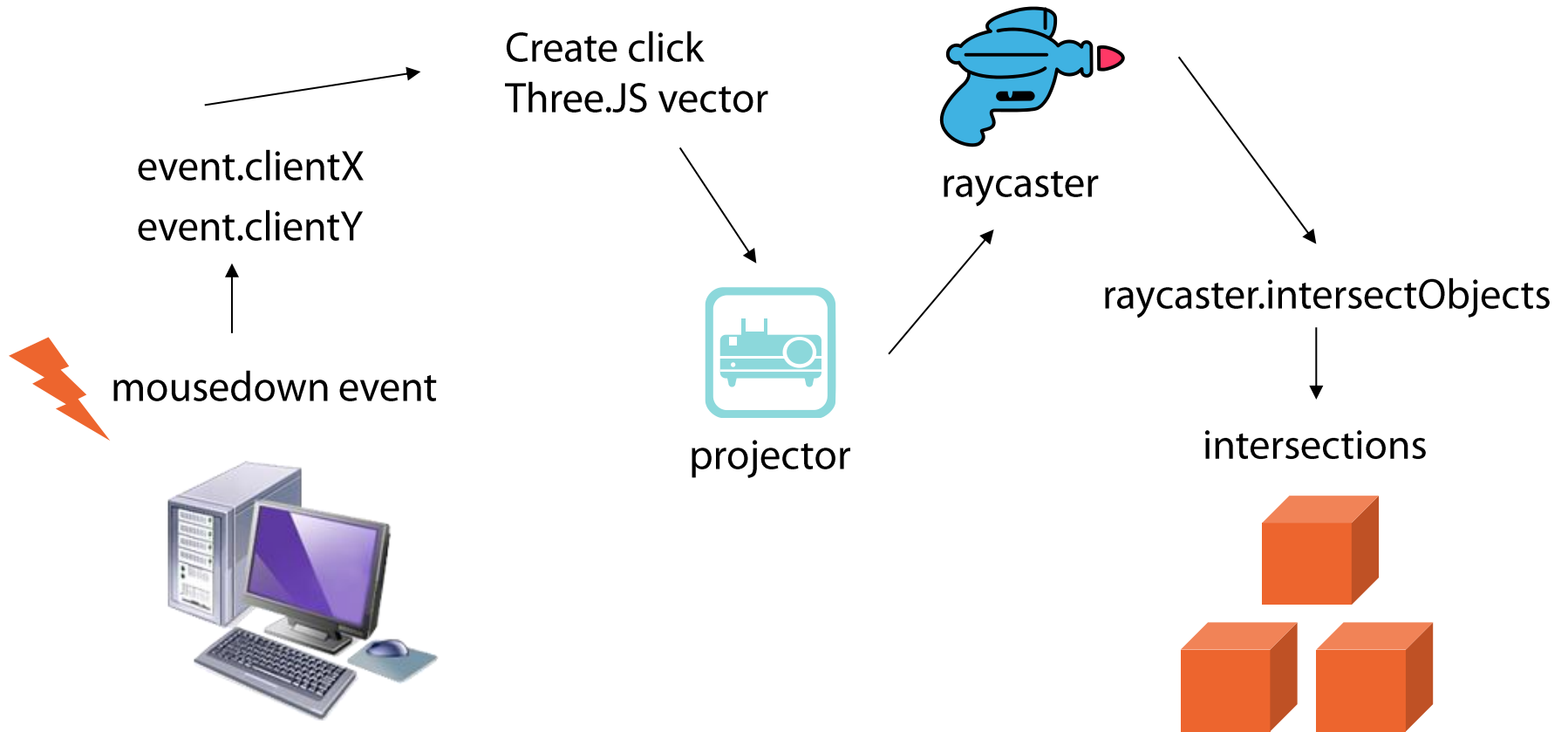
Collision Detection



Raycasting



Converting Screen to World Coordinates



Box3

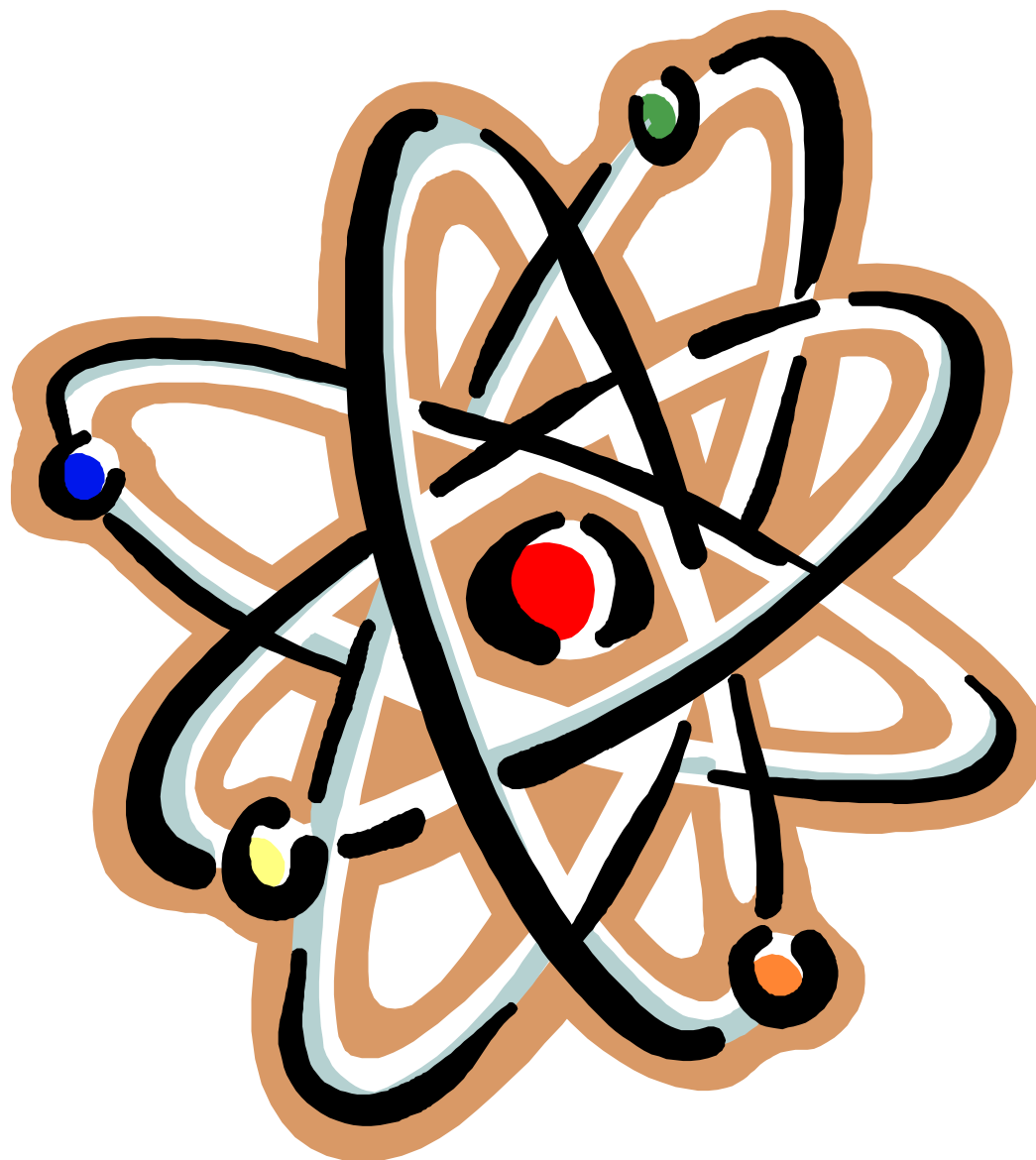












Physijs

- **Physijs**
 - Easy to integrate into Three.js projects
 - Wrapper for Ammo.js (JS version of C++ Bullet libraries)
 - Calculations performed in separate thread (web worker)

What You Will Need

- **Physijs**

- Available from: <http://chandlerprall.github.io/Physijs/>
- Add `physi.js`
- Add `physijs_worker.js`

- **Ammo**

- Available from: <https://github.com/kripken/ammo.js/>
- Also included in Physi.js examples

Gravity



Mesh Properties

Mass

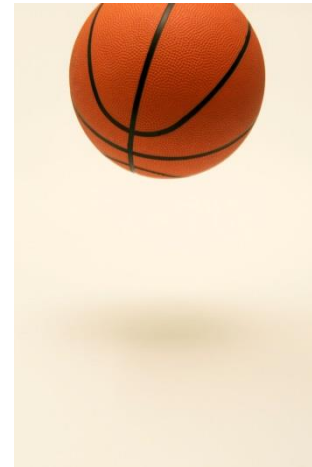


Material Properties

Friction



Restitution/Bounciness



Summary

- Page Events
- Control Libraries
- Collision Detection with Raycasting & Box3
- Physijs Physics Engine