

# Mobile Game Development

## Topic 02 : Introduction to Solar 2D

---

### Lecture 01 : Solar 2D Overview

Dr Kieran Murphy

Department of Computing and Mathematics, SETU (Waterford).  
(kieran.murphy@setu.ie)

Autumn Semester, 2022

#### Outline

- Solar 2D game development Framework
- Trivial game - Ballon Hop
- Game - Star Explorer

# Main Features of Solar 2D

- Cross platform:
- Support for deployment as native app and multiple monetisation options.
- Free, open source (July 2020) — previous version (named Corona SDK) was ‘semi-open sourced’ with commercial licensing options.
- Stable API and good documentation — much of it still uses the original title (corona) but otherwise excellent documentation.
- Lua based (interpreted not using JIT).
- OpenGL based.
- Decent physics engine — box2d
- Relatively light hardware requirement.



## Alternatives (Lua based)



- Possibly Gideros and Defold are better.
- Picked Solar 2D due to quality of documentation, minimalistic development environment and stability of simulator.

See <https://pandaqi.com/blog/my-review-of-corona-game-engine>

# Game Plan — From Documentation/Tutorials

## Ballon. Tap

[docs.coronalabs.com/guide/programming/01/index.html](https://docs.coronalabs.com/guide/programming/01/index.html)

- trivial ‘game’ - one event (touch), single scene, basic physics.
- Introduce the Solar 2D simulator.

## Star Explorer

[docs.coronalabs.com/guide/programming/02/index.html](https://docs.coronalabs.com/guide/programming/02/index.html)

- Multiple events (tap, drag and drop),
- Using display groups to get layers (z-order).
- Image sheets to store game graphics.
- Asset creation and removal.
- Timing of events using `timer.performWithDelay` instead of manual countdowns.
- Multiple scenes via composer.
- Persistent data — high scores.
- Audio