

Amazing Dinosaur

Group 4

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OUTLINE



Modules



Challenges



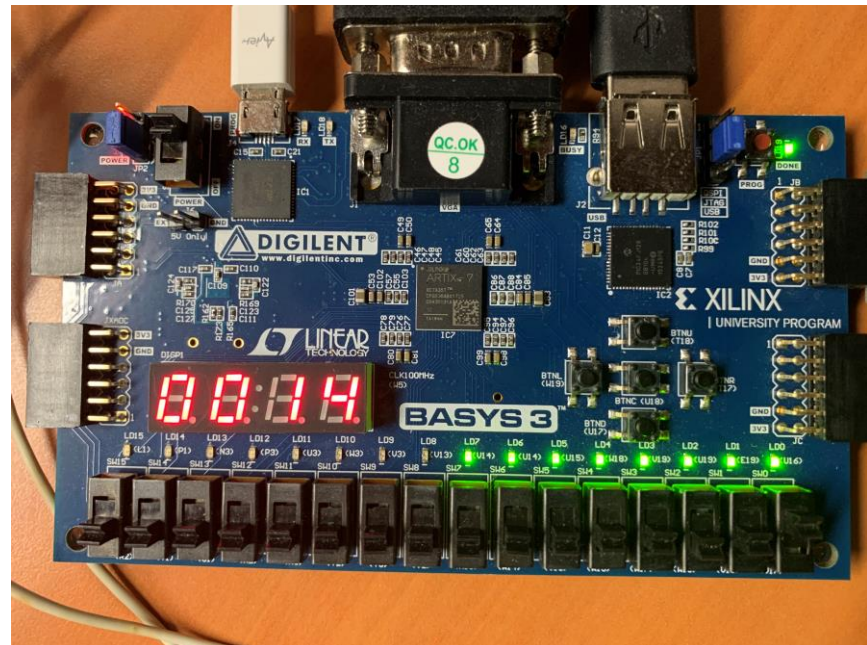
Future Works



Q&A

Modules

- amazing_dinosaur
- dino_moving
- road
- obstacle
- score
- audio
- keyboard
- vga



Modules

- dino_moving
 - Output Dinosaur Body and control Jumping
 - Decide **HOW high** and **HOW long** it should jump.
- road
 - Output ground
 - Control **HOW Fast** the screen moving.
- keyboard
 - Space key to Start/Jump.

Modules

- score
 - Using **BCD counter** to count the score.
 - Output Score on screen.
- audio
 - **Play music** when dinosaur is running.
 - Jumping sound effects.
- obstacle
 - To generate a pseudo random **position of obstacle**.
 - I used **LFSR** to generate.
- vga
 - Output the Final Screen.

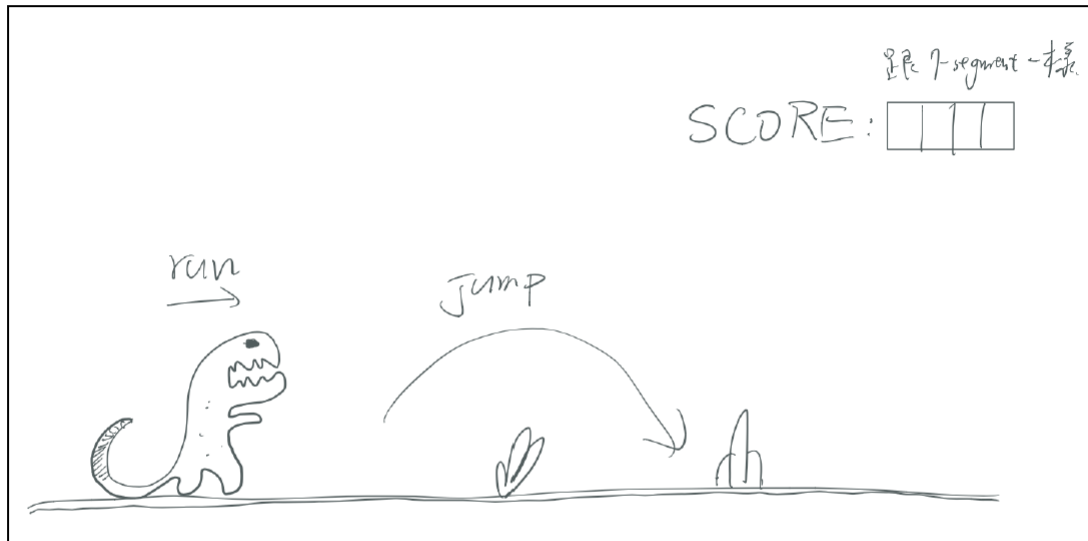
Challenges

1. Generate Random Obstacles but they cannot collide.
2. Generate High resolution screen.
3. Time Limit.

Future Works

Project Description:

1. 概念圖、功能描述與使用到的 I/O Devices 或額外的機構設計
我預計設計一個恐龍遊戲，並且包含音效、進入、結束等畫面。



1. Adding more background elements.
2. Adding History Score.
3. Adding dinosaur movement, like getting down.
4. more...

- Switch 用來控制是否啟動遊戲，輸出 VGA **done**
- LED 用來顯示目前的狀態（初始、遊戲中、失敗） **done**
- Push button 用來 Reset **done**
- 7-segment Display 可以顯示目前的分數 **done**
- 鍵盤 用來控制恐龍可以跳起來避開障礙物 **done**
- Audio 遊戲背景音樂 和 失敗的音效，還有恐龍跳起來的音效 **80% done**
- VGA 輸出遊戲畫面 **done**



Q&A