

# CSEE4840 Final Project Proposal

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## 1. Abstract

In this project, we intended to implement a simple video game called *bastard ice cream*. It contains single player mode and multiple player mode. The general purpose of the game is to eat up all the fruit while avoid colliding with bastard enemy. The player is able to create and destroy ice which could block the enemy or escape. The desired visual effect is shown below.



## 2. Implementation Brief

We will basically follow up the configuration for lab2, which enable us to use the general VGA display and keyboard/mouse input. VHDL and C will be used to configure FPGA and drive for the hardware.

### **3. Milestones**

#### Milestone 1

- Hardware drive setup
- Construction of game map
- Character sketch and movement control

#### Milestone 2

- ice power generate and destroy ability
- VGA driver and Color display
- Sound enable

#### Milestone 3

- Fancy features: enable ice power visual effect
- Record player score and show the rank list after game finishes

Our Optional Choice: If time permits, we will try to do multi player mode testing which makes the game more fancy.