# A Counting Game

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## Introduction

This is a basic project

## Objective and Requirements

The purpose of this project is to make a counting game on the embedded platform on the ChipKIT Uno32 board. In this game a counter starting from 0 to as large it can get will be displayed at the board. Every time that counter displays a number divisible by 7 the player/players will have to press one of the buttons on the ChipKIT or lose one life. Every player start with 3 lives. The main must requirements for the game are as follows:

- There must exist a 2 player mode
- As the counter grows in size the speed of the counter increases, aka we will have to use interrupt flags
- The player must respond to the game by pressing a designated button
- The players in game lives must be displayed on the board

## Solution

We intend to develop our project on the ChipKIT Uno32 board together with the Basic I/O shield. We will use the small display on the Basic I/O shield to display the game. We will use interrupt flags to update the screen and control the speed of the game. All the development is done using the MCB32tools and all code is written in C.

## Verification

We intend to verify the program by performing extensive testing. We will focus on how the written C code is implemented on the ChipKIT and how to optimise it to serve it's purpose. Secondary testing on testing weather or not the ChipKIT reads the data from the designated memory addresses.

## Contribution

Me and my lab partner Gustav Andell intend to work in pairs to develop the C code and test if it works as it should on the ChipKIT.

## Reflection

In the final abstract, we will discuss and reflect on what happened in the project.