



TelluriumDev

## Motivation

TelluriumDev's team is composed by three 4th year Multimedia Engineering students at the University of Alicante, who took the "Digital creation and entertainment" itinerary. The motivation that led us to create this project arises from the effort invested by Dr. Francisco José Gallego Durán in growing us as engineers, giving us pure knowledge in each class of "Video Games 1".

## Idea origin

Like all novel Game-Designers, our first game ideas were exorbitant for the available development time, but following Fran's wise advice, we chose a fun base game, from which we started our project (the base game chosen is top secret). And so we started the development of ManPac!

TelluriumDev



CONTROLS

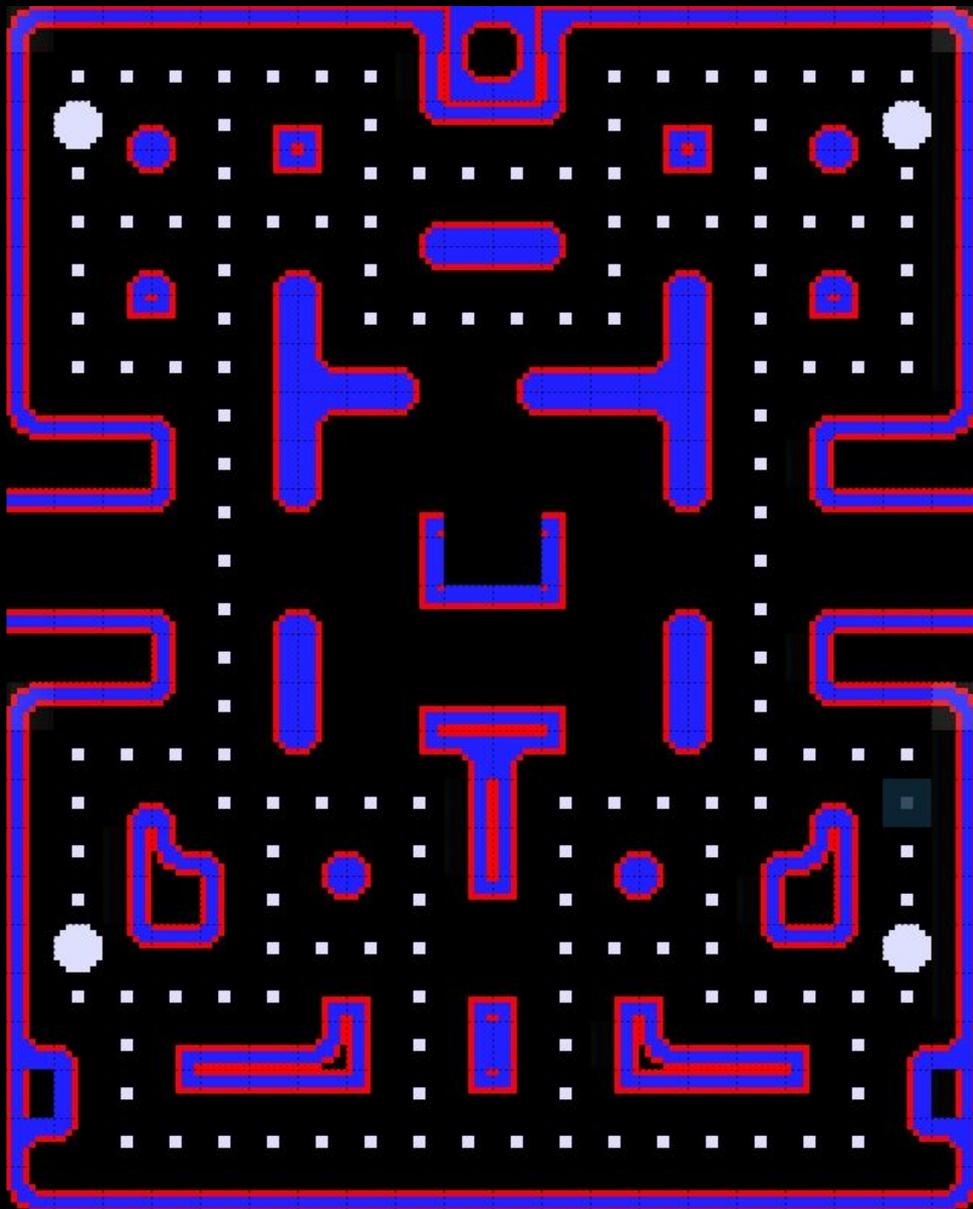


AMSTRAD 2019  
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## Graphic Art

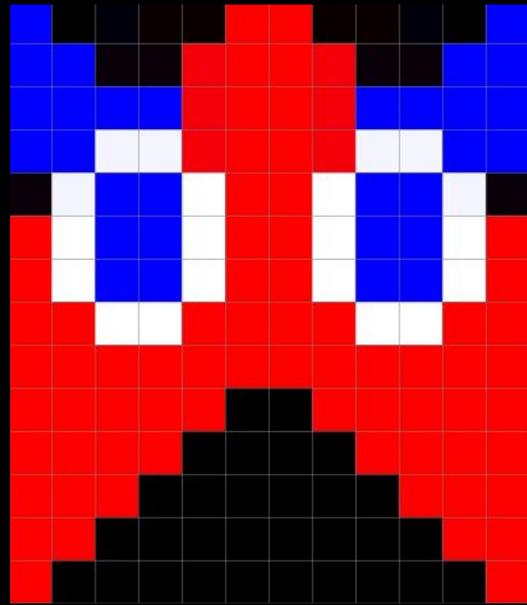
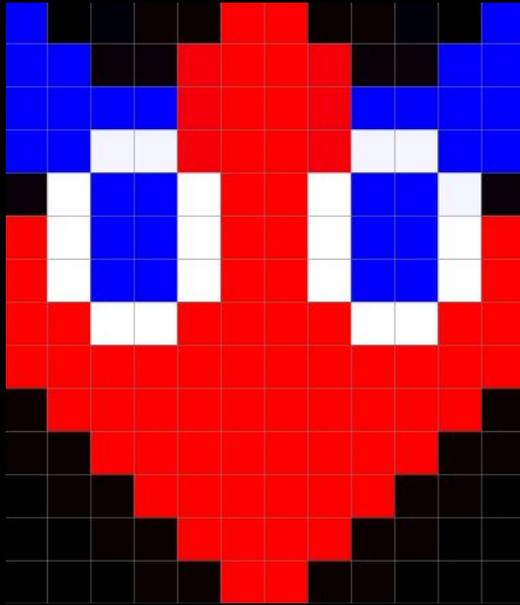
As it is common, we chose mode 0 to have 16 colors in exchange for a lower resolution (160x200), so our assets and tiles are all 8x8 pixels except for the characters, which are 12x14 pixels, allowing them to stand out by size and color of the rest of the stage. This decision brought us some headaches, since moving a square of 12 pixels by a corridor of 8 pixels is something difficult. To do this, we had to redesign the map several times until we found the definitive one.

## Game Map



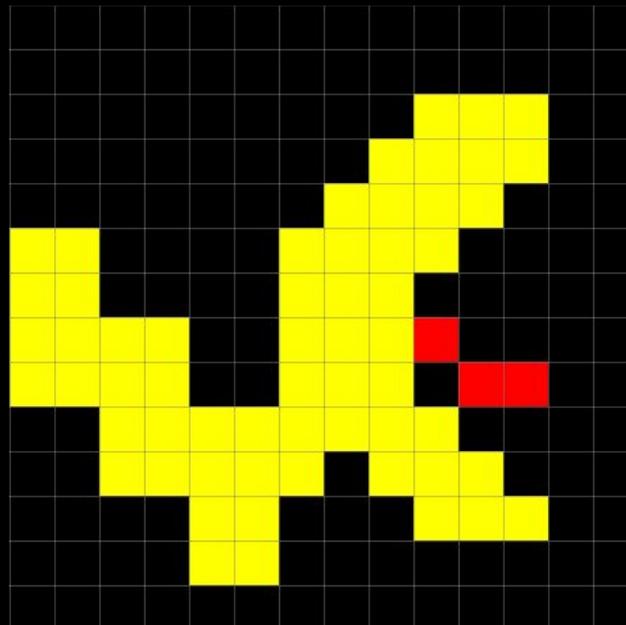
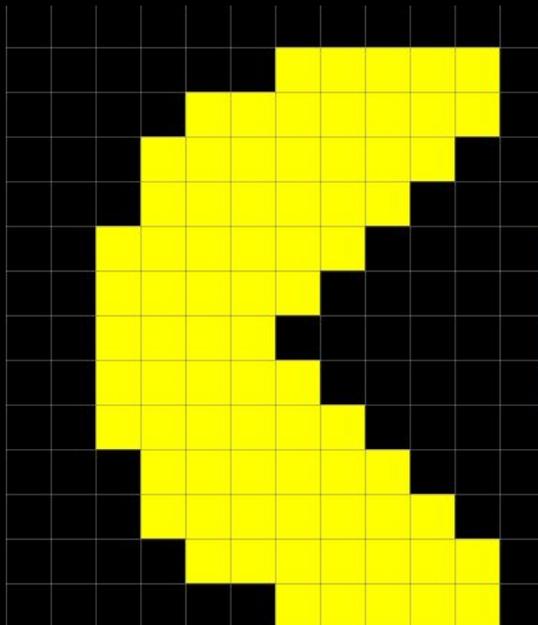
## Player

To design the charming little devil ManPac, we had to play with the 168 pixels available until we got a nice result.



## Enemies

The design of the enemies was much more fun, trying to transform the adorable PacMan (ups, slip of the tongue) into the aggressive snake that is now.



## Music and sound

Regarding the challenges within the melody, they are infinite. In the end, composing is a world that requires very specific knowledge and qualities. Within our possibilities we have tried to carry out an interesting and catchy melody making the most of the 3 channels offered by the AY-3-8912 with the Amstrad CPC 464.

To do this, we used the Arkos Tracker 1 software. At first, we had difficulties composing since our limited musical knowledge was added to learning how to use the program, sometimes not very intuitive. However, with effort and the help from our wonderful Internet, we managed to learn enough to make the main melody of the game.

## Code

### Planning

The code is fully developed in assembler for the Z80, which began with a learning by the hand of "Professor Retroman" in Youtube.

<https://www.youtube.com/channel/UCSdIAKvPxIB3VIFDCBvI46A>

We decided to follow a simplified structure of System Entity Component System that helped us in the management of the code.

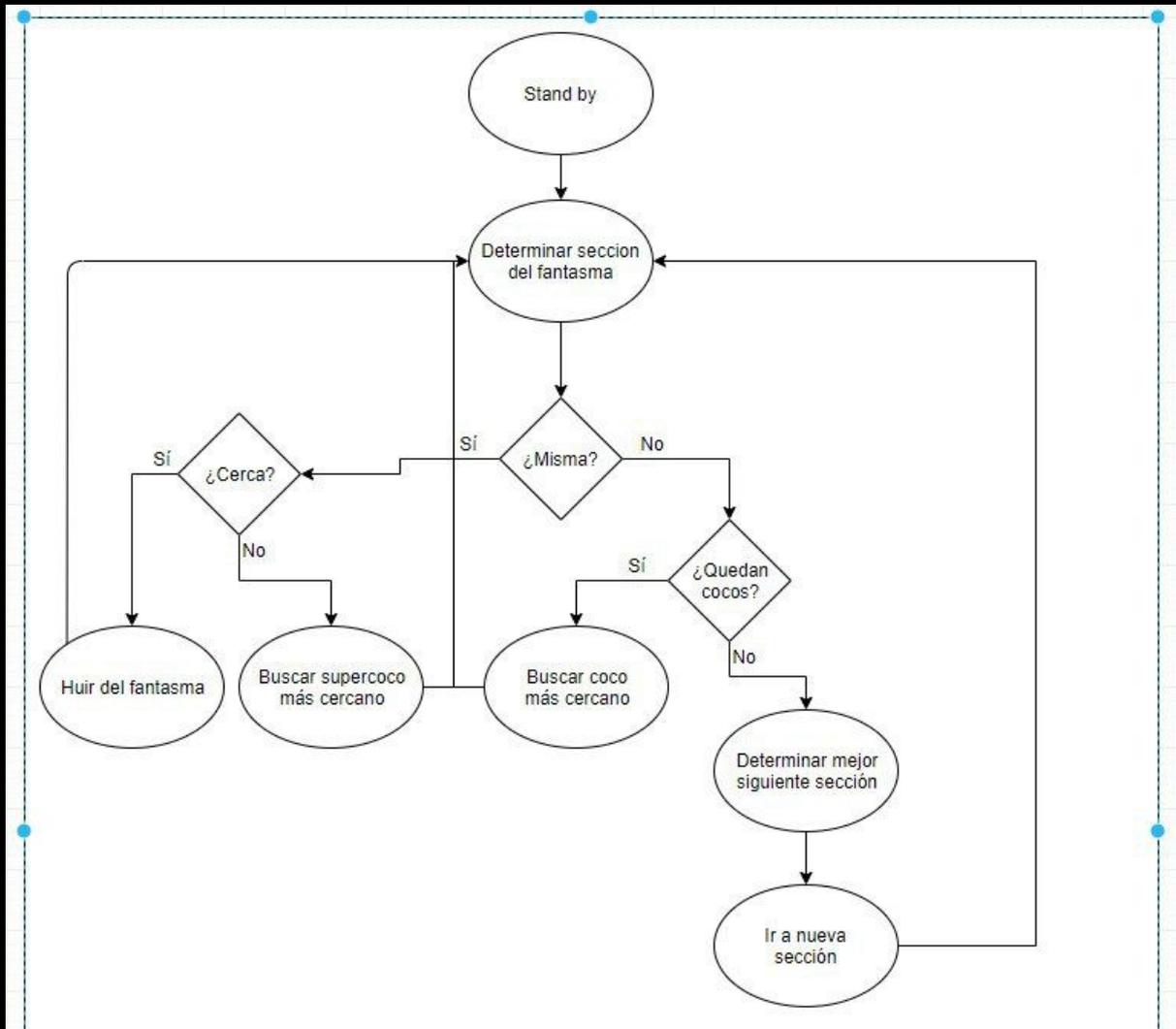
### CPCtelera



This powerful tool and main core of our project is is the one responsible for us having a fun game in just a couple of weeks without ever having programmed assembler before.

# AI of the Enemies

The initial idea was to create an AI for enemies, simple but fun.



But with only a few days to go before delivery, we still had a long way to go to complete that phase of the project, so we decided to pivot (and at least not badly) to predefined patrols on enemies. We used all our knowledge of strategy to design each movement.

