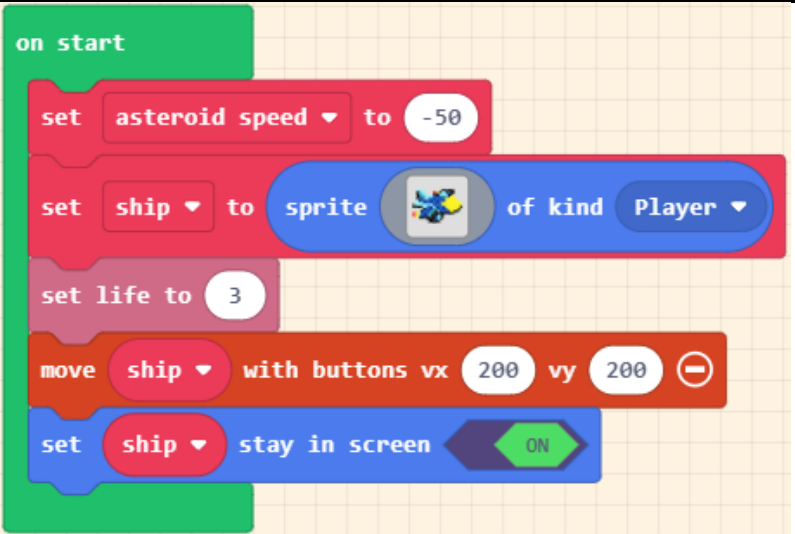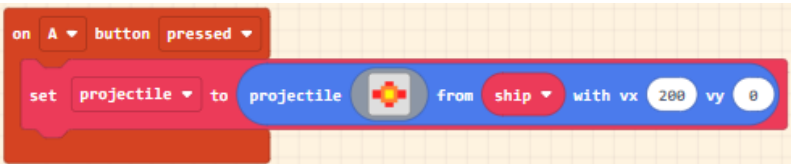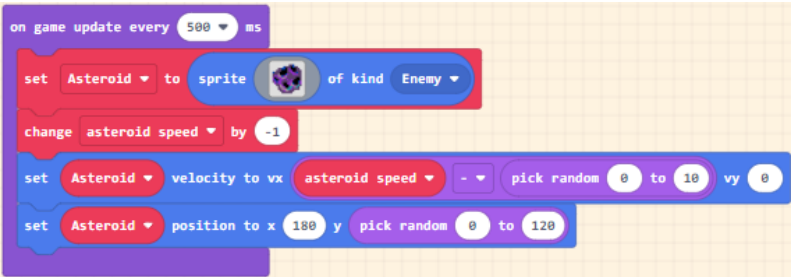**FIRST MOTION TASK**

Description

In this project, we are going to create a ship game where the screen will be made by elements that have a function and they will appear and disappear.

Goals

- Work with sprites movement in MakeCode Arcade.
- Be able to place the sprites anywhere inside the screen zone and set the movement parameters of the sprites.
- Program the interaction between the elements.
- Set the sprite´s life and lose it in a correct way.
- Place decorative elements to create a sensation of movement.

MAIN PROGRAMMING
ON START GAME CREATION

We start creating a variable it will stablish the asteroid speed and we must set a value of –50. We set 3 initial life score and we also give control to the sprite, it will be the player, besides we increase the x and y axes speed, The ship will stay inside the screen all the time.	

SHOOTING MECHANIC

When pressing A button, a projectile will come out from the ship, and it will only move in the x axe with a speed of 200.	

ENEMY SPAWN MECHANIC

Every half second, it will appear an asteroid from the right side of the screen with a – 51 initial speed in x axe minus a random number between 0 and 10. Due to the initial ¨asteroid speed¨ was –50 and we add up - 1, it will have a x axe basic speed of –51, it has a negative value because we want it to come out from right to left. No y axe value added because we do not want vertical movement.	

INTERACTION MECHANICS	
The interaction between projectile and asteroids will be the destruction of both elements and the score will increase by 1. We can add an effect, so the destruction is more realistic.	on sprite of kind Projectile ▾ overlaps otherSprite of kind Enemy ▾ destroy otherSprite ⊕ destroy sprite with fire ▾ effect for 100 ▾ ms ⊖ change score by 1
When touching the asteroid with our sprite it will lose 1 point of life and the asteroid will destroy itself.	on sprite of kind Player ▾ overlaps otherSprite of kind Enemy ▾ destroy otherSprite ⊕ change life by -1
BACKGROUND DECORATION	
To decorate the background, we are going to design a sprite of kind ¨star¨ and they will appear from right to left, the same settings than asteroids, but the speed will be –100 in x axe but it is possible to give random values. The x position is 160 and the y axe random. We will add the ¨set mySprite auto destroy on¨ so we eliminate the star sprites and do not overburden the game.	on game update every 500 ▾ ms set star 1 ▾ to sprite of kind star_background ▾ set star 1 ▾ position to x 160 y pick random 0 to 120 set star 1 ▾ vx (velocity x) ▾ to -100 set star 1 ▾ auto destroy ▾ ON
This section is almost the same that the previous one, but we will change some settings like the waiting time and the sprite design (also its name). The sprites of kind ¨star¨ will not interact with the game, they are decorative elements used to get sensation of movement.	on game update every 200 ▾ ms set star 2 ▾ to sprite of kind star_background ▾ set star 2 ▾ position to x 160 y pick random 0 to 120 set star 2 ▾ vx (velocity x) ▾ to -100 set star 2 ▾ auto destroy ▾ ON

With that programming we can control a ship in a surviving game, trying to get the maximum score in game destroying the asteroids. The more time passes the faster asteroids go. If we want to eliminate them, we must use projectiles pressing A button.