In a *platform* game, make a player object move when arrow keys are pressed.

**Object_Player**

**Event:** Step `<Step>`
- Action: Check Empty
- Applies to: Self
- x: 0
- y: 1
- Objects: Only Solid
- Check Relative
- No NOT

{same event}
- Action: Set Gravity
  - Direction: 270
  - Gravity: 1
  - Not Relative

{same event}
- Action: Else

{same event}
- Action: Set Gravity
  - Direction: 270
  - Gravity: 0
  - Not Relative

When setting gravity, Game Maker uses degrees to set direction because the gravity does not relate to (x,y) coordinates in the game room.

This will set the gravity for the object_player. **Check Empty** will check if there is anything under the player and set the gravity to 0 if there is a solid object. **Else** means if there isn’t a solid object underneath, set the gravity to 1 to drop the player.

To make your object_player move left, right, and up- you will need a **solid** object_wall

**Object_Player**

**Event:** Keyboard `<Left>`
- Action: Check Empty
  - Applies to: Self
  - x: -1
  - y: 0
  - Objects: Only Solid
  - Check Relative
  - No NOT

Continued on Part 2 of 3
{same event}
Action: Jump to Position
Applies to: Self
x: -4
y: 0
Check Relative

Event: Keyboard <Right>
Action: Check Empty
Applies to: Self
x: 1
y: 0
Objects: Only Solid
Check Relative
No NOT

{same event}
Action: Jump to Position
Applies to: Self
x: 4
y: 0
Check Relative

Event: Key Press <Up>
Action: Check Collision
Applies to: Self
x: 0
y: 1
Objects: Only Solid
Check Relative
No NOT

[same event]
Action: Speed Vertical
Applies to: Self
Vert. Speed: -14
Not Relative

When setting player movement, Game Maker uses (x,y) coordinates. Remember that the y-axis is flipped, so positive y-coordinates go down instead of up.

Continued on Part 3 of 3
Event: Collision <Wall>
Action: Move to Contact
  Applies to: Self
  Direction: direction
  Maximum: 12
  Against: Solid Objects

{same event}
Action: Speed Vertical
  Applies to: Self
  Vert. Speed: 0
  Not Relative

Important Notes:

When you place your object_player in the game room, it MUST be above the wall. If the game starts with object_player touching object_wall, the player will become stuck and immobile.

Test out how the player moves between the platforms. How high can he jump? How many blocks can he jump? Platform games are harder to design than free form or maze, because it is possible to get stuck without a way to complete a level.

The design of the levels is more important than the height or movement speeds. Be careful not to design your game and then change your vertical speed in a way that the player can't access the platforms. You should also be careful not to design the game and then make it too easy by increasing his movement speed.

The other cards in this packet will apply to platform games, but you should ignore any player movement changes unless you are using a card that states PLATFORM GAME ONLY at the top.