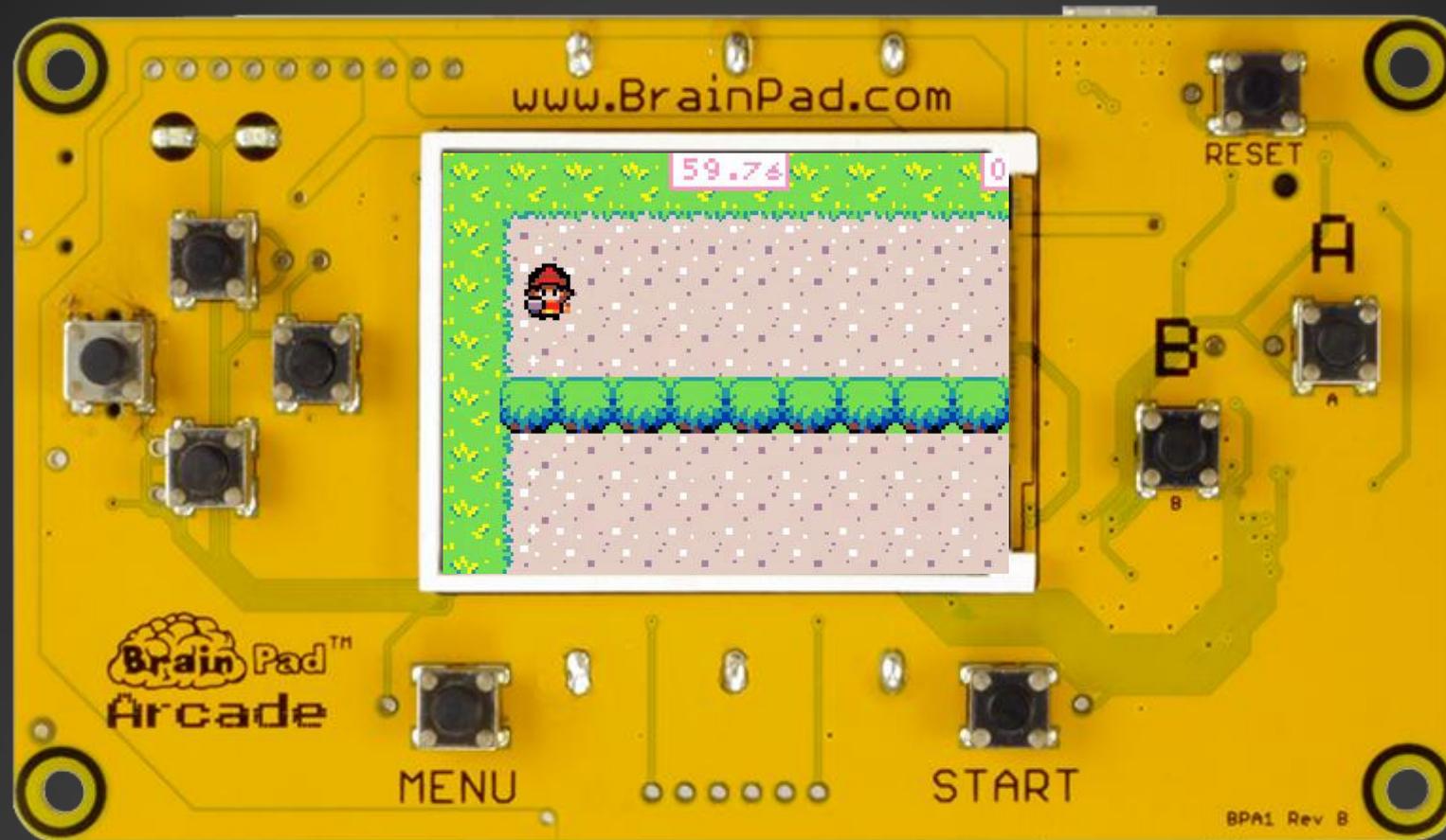




2-D ADVENTURE – EPISODE 03



Let's add a world to explore in our game!

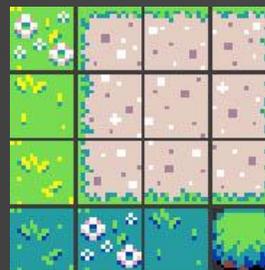


Computer Term:

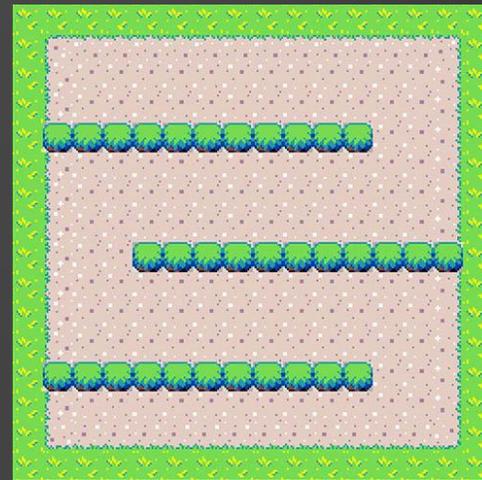
Tilemaps

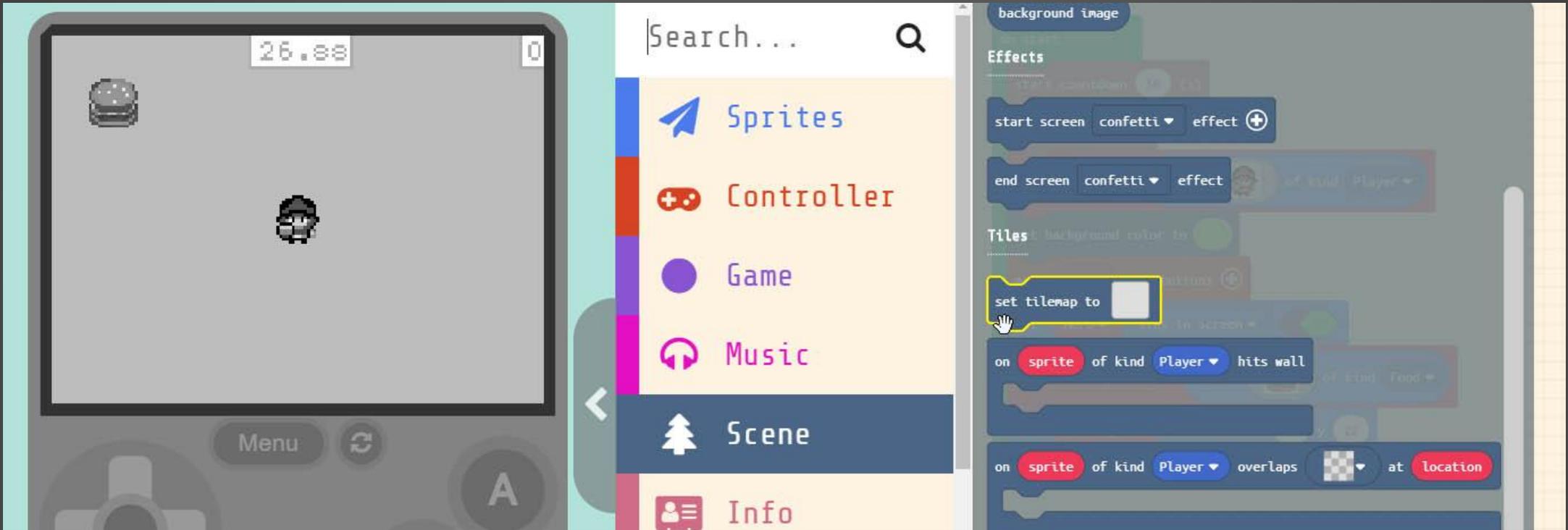
Using tilemaps is a very popular technique in 2D game development to build worlds using regular shaped images called tiles.

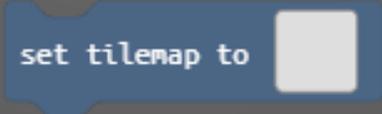
EXAMPLE:



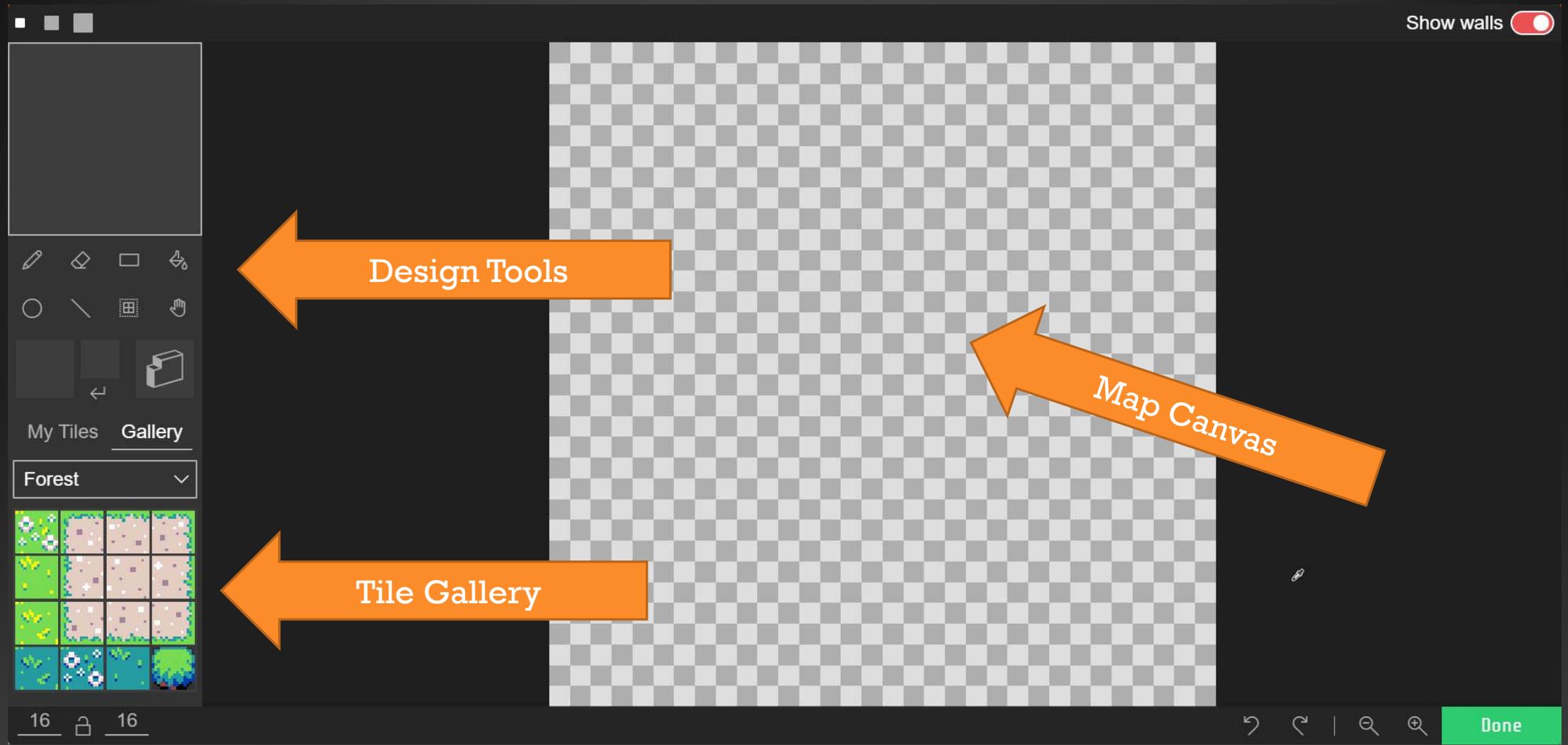
=

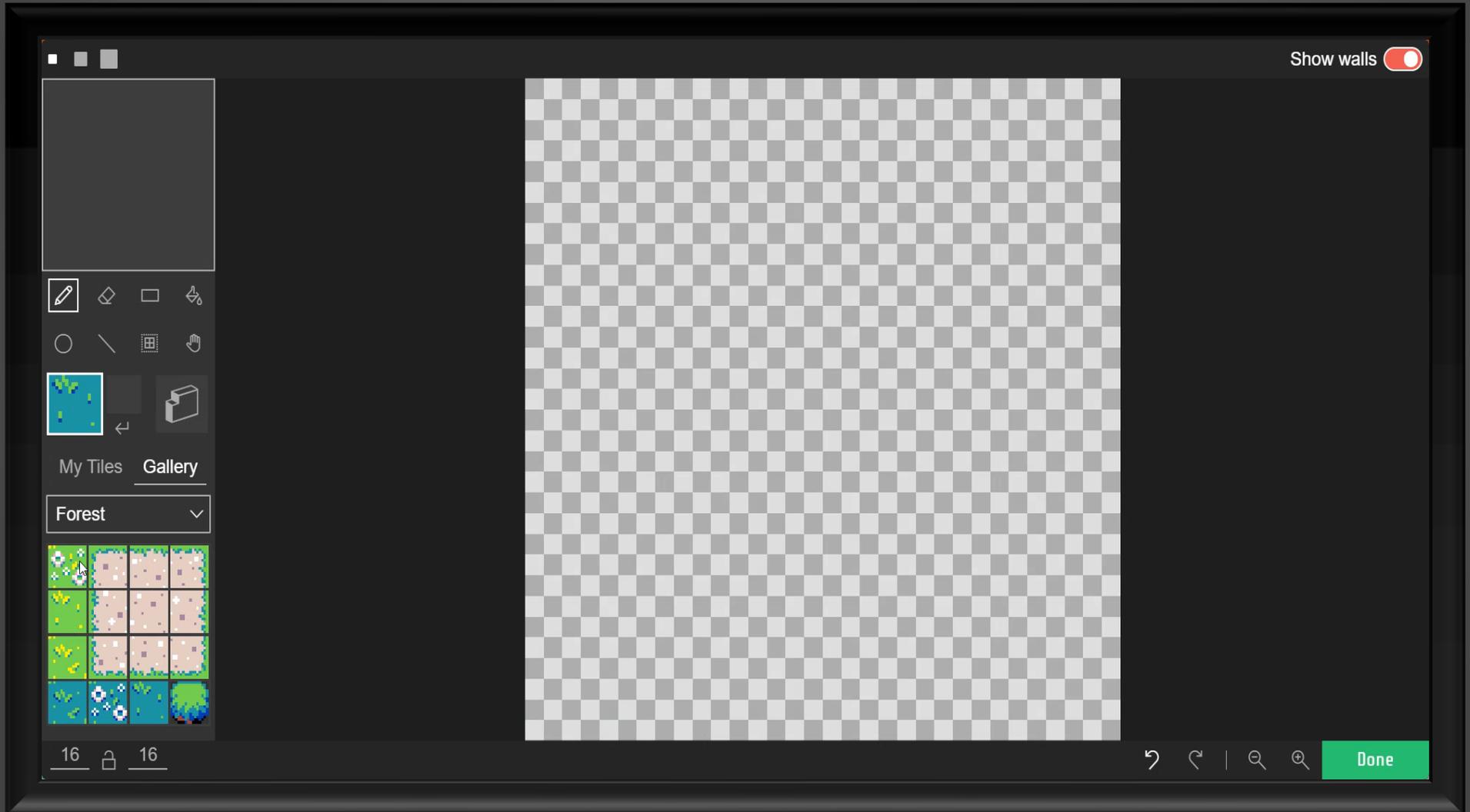


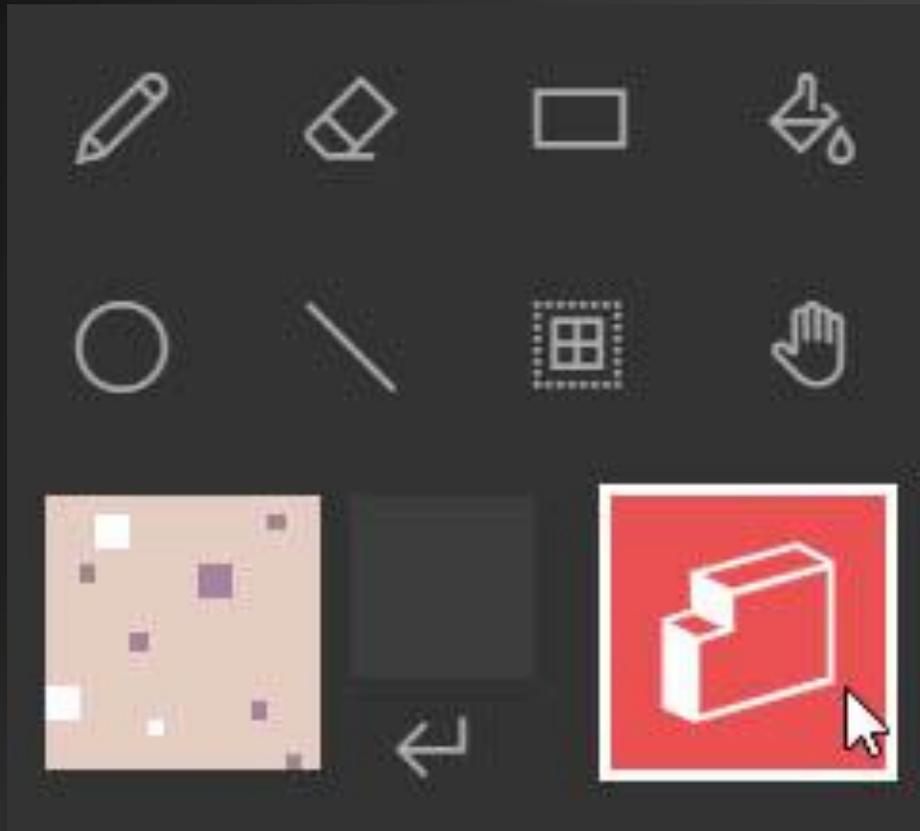


Grab the  block
and drag it into the  block

TILE MAP EDITOR







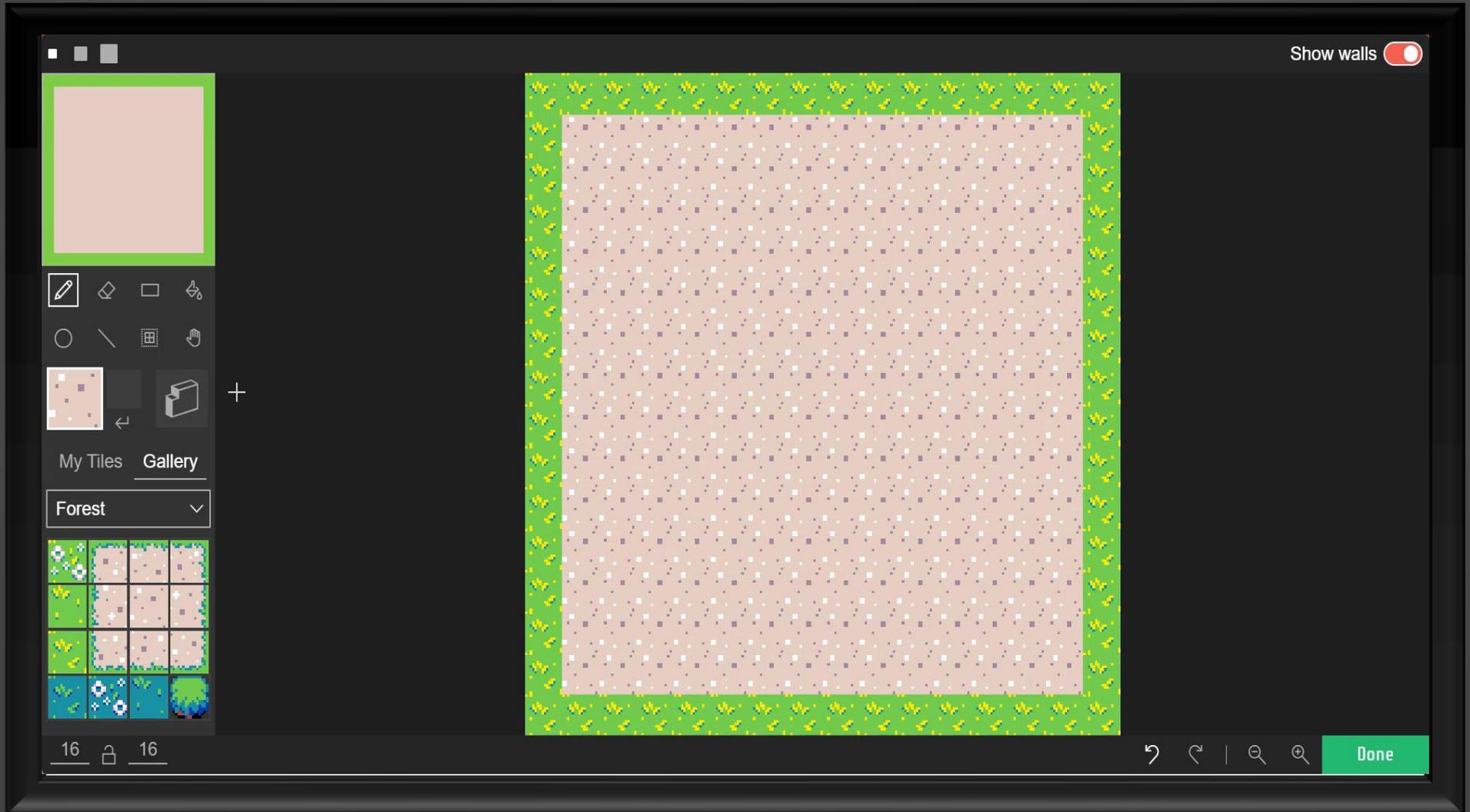
Show walls

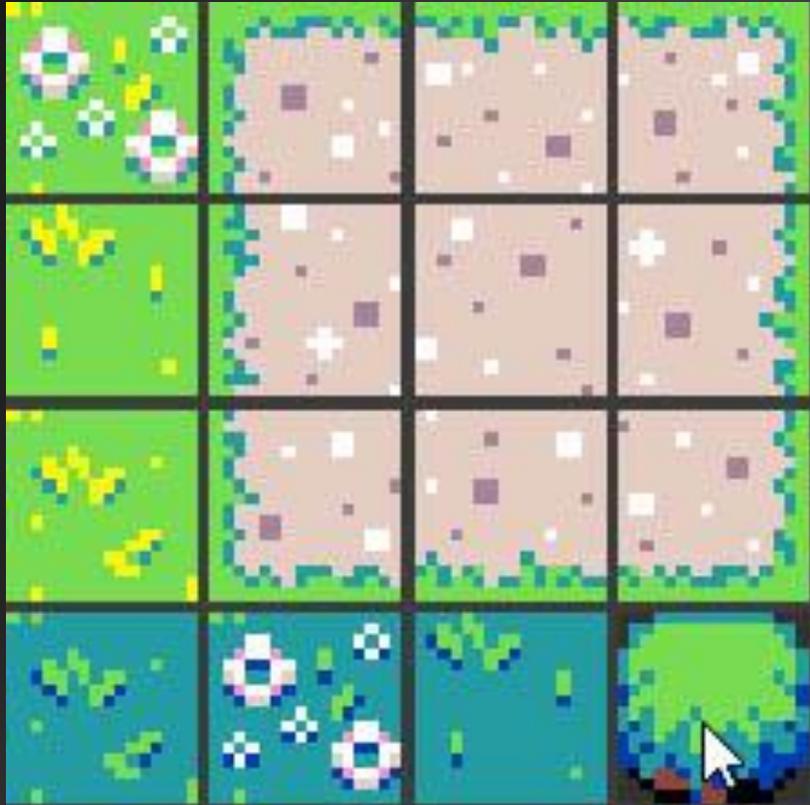
Let's create a wall around the outside of our tile map.

Any of the tiles can be turned into a wall

select the "Wall Creation" tool

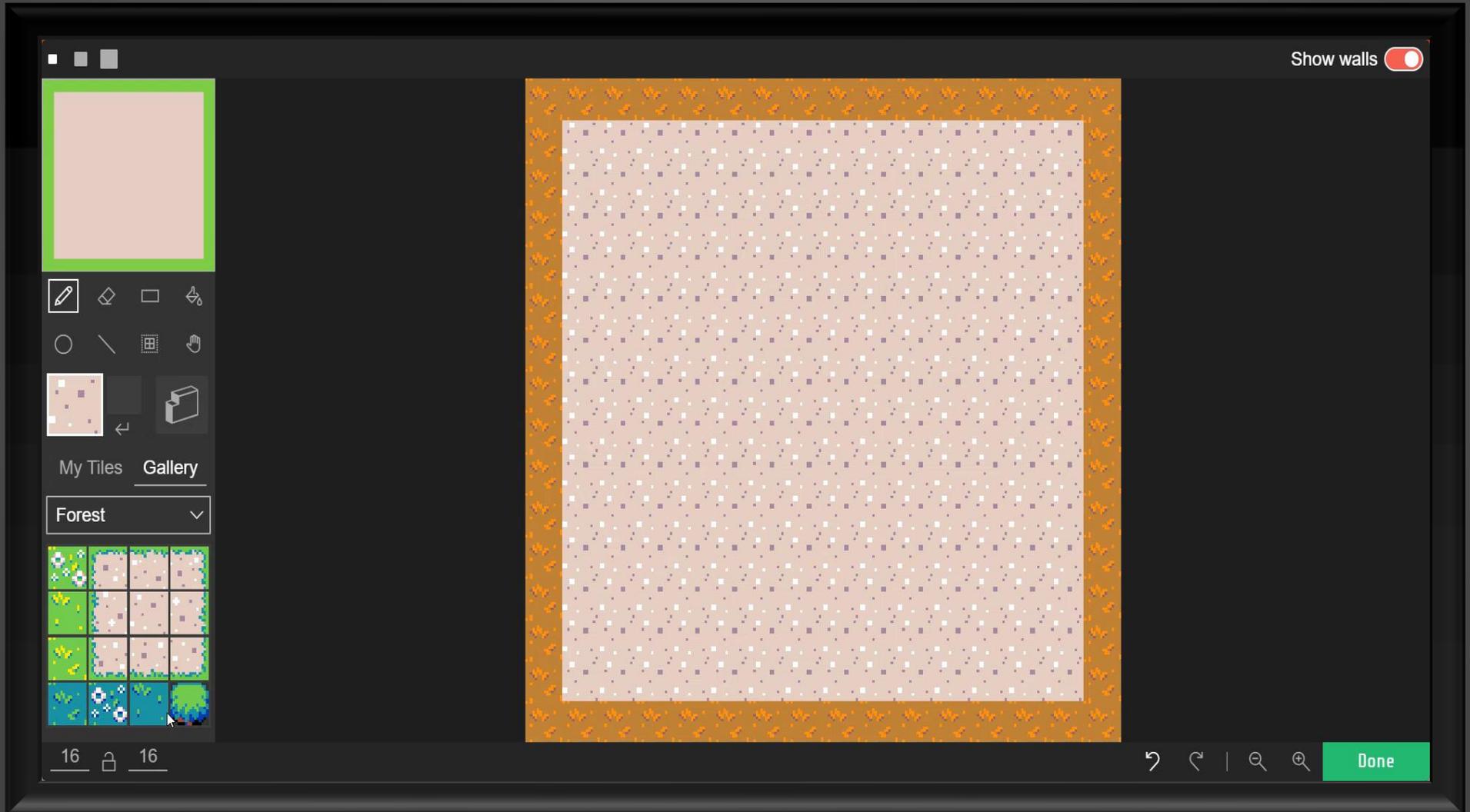
Also make sure "Show walls" in the top right corner is turned ON

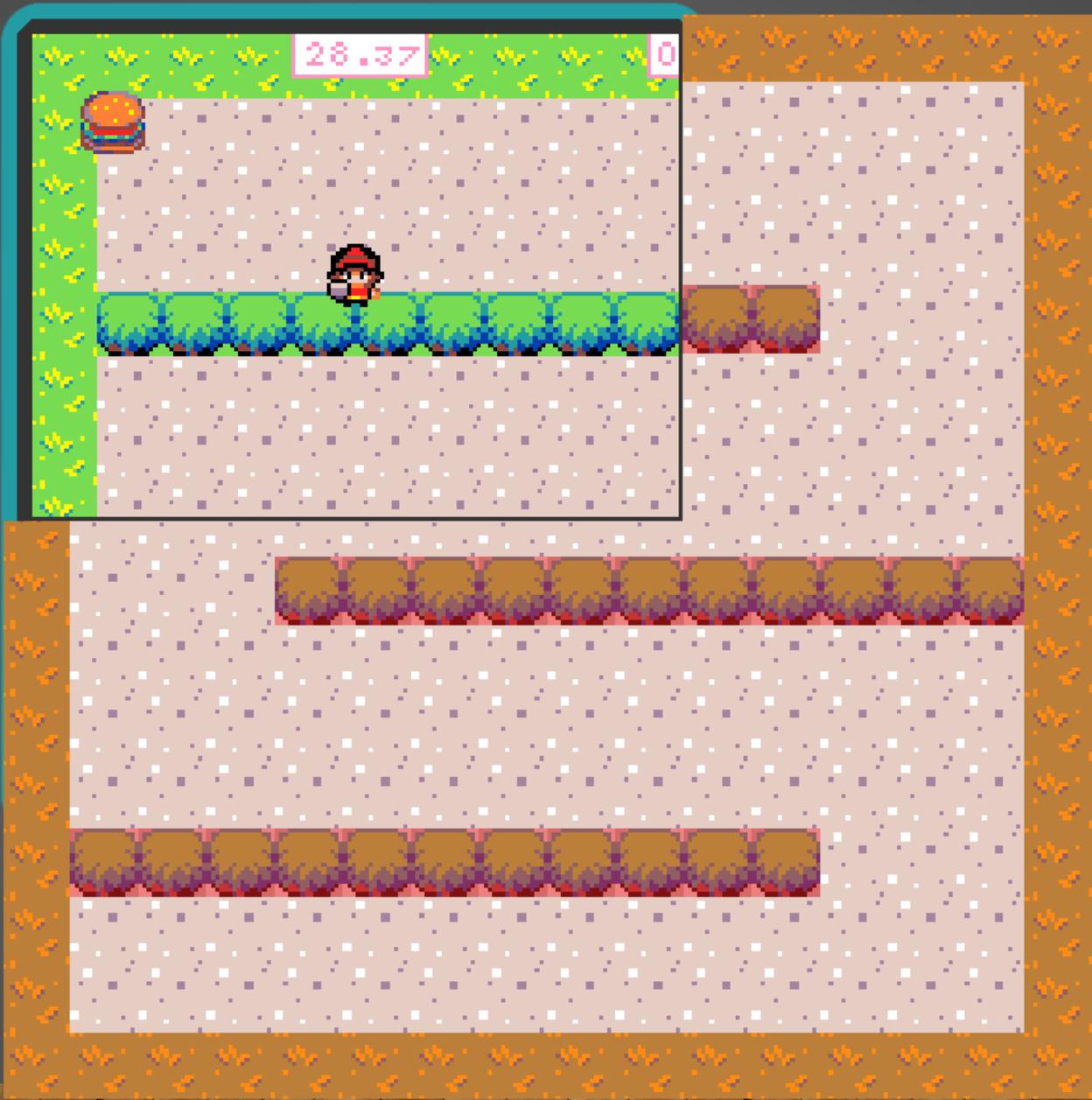


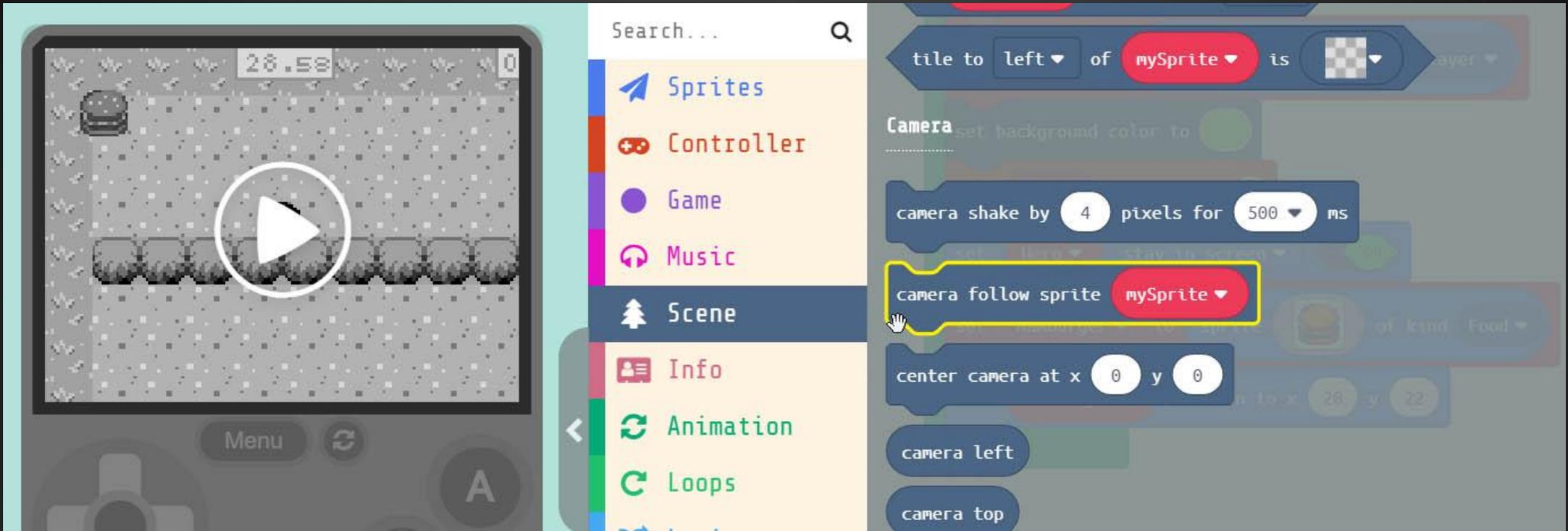


Let's add some rows of bushes for our 'Hero' Sprite to move around.

Select the bush tile from the 'Tile Gallery' and let's added it to our Map.

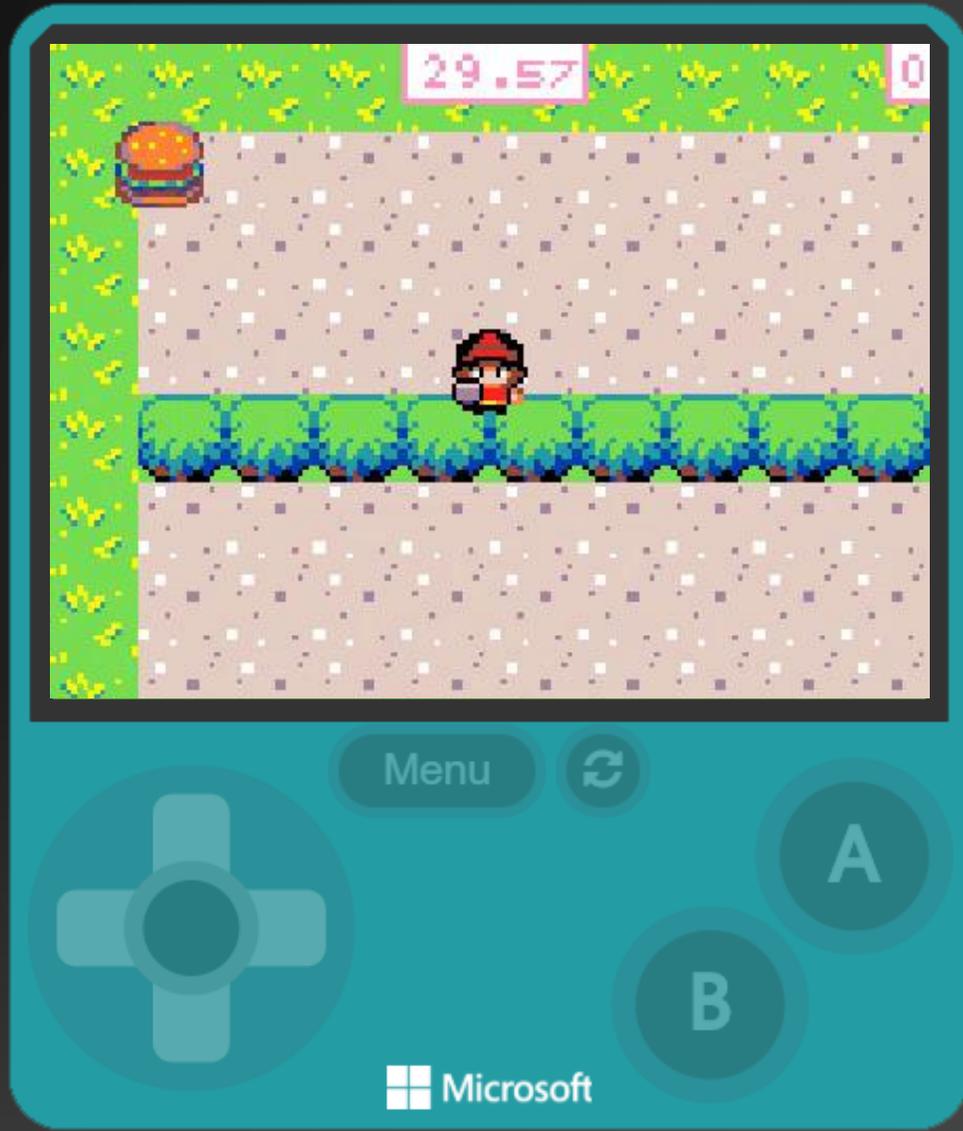






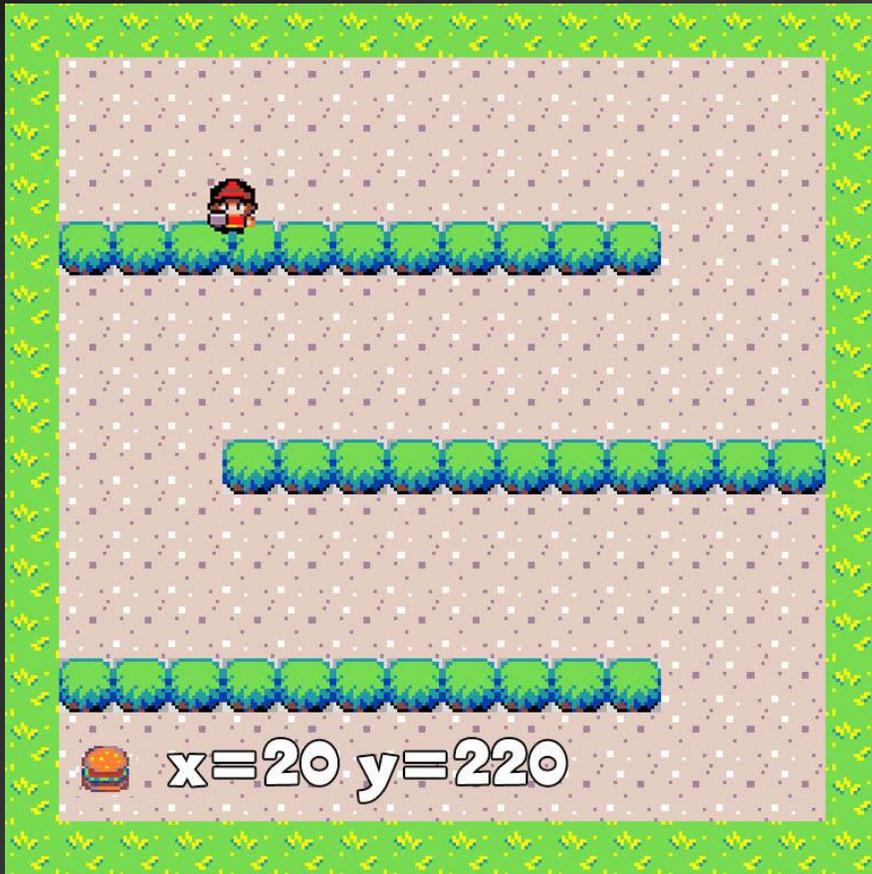
Grab the `camera follow sprite mySprite` block

and drag it into the `on start` block

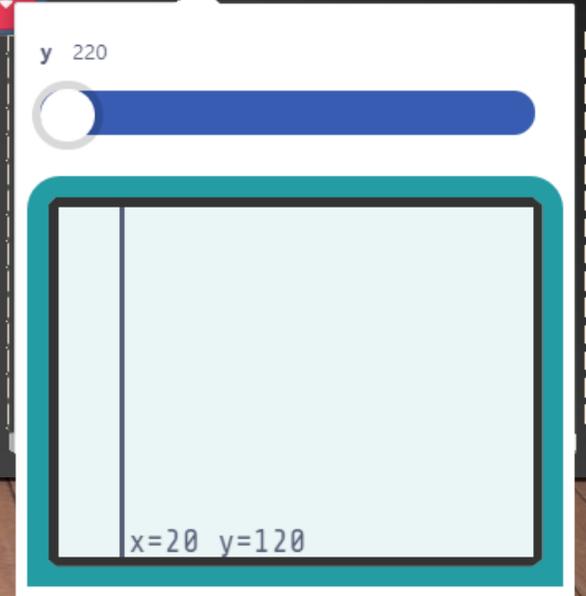


```
on start
  set tilemap to [tilemap icon]
  start countdown 30 (s)
  set score to 0
  set Hero to sprite [Hero icon] of kind Player
  set background color to [green circle]
  move Hero with buttons [plus icon]
  set Hero stay in screen [ON]
  set Hamburger to sprite [Hamburger icon] of kind Food
  set Hamburger position to x 20 y 22
  camera follow sprite Hero
```

Change the parameter to 'Hero'
Now the camera will follow our 'Hero'

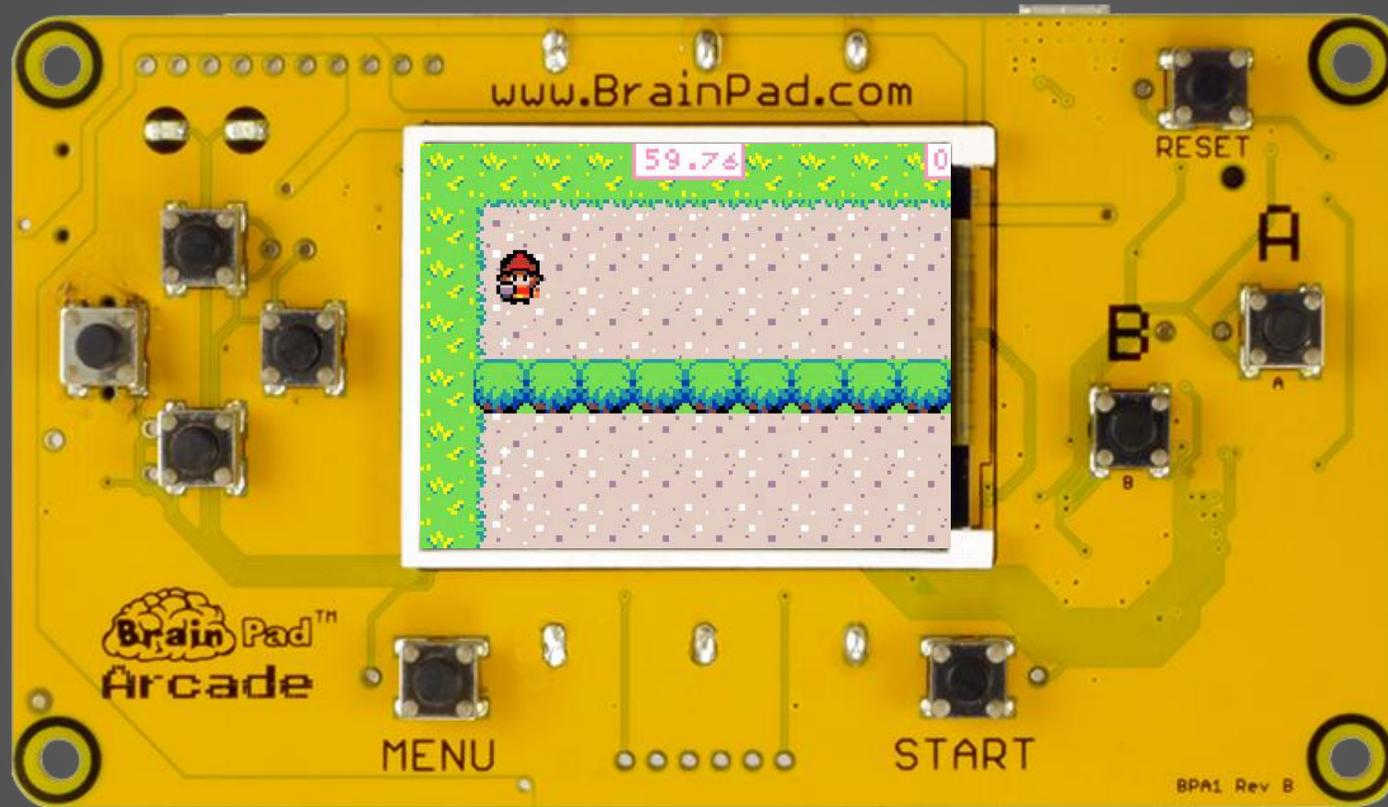


```
on start
  set tilemap to [tilemap]
  start countdown 30 (s)
  set score to 0
  set Hero to sprite [Mario] of kind Player
  set background color to [green]
  move Hero with buttons +
  set Hero stay in screen [ON]
  set Hamburger to sprite [Hamburger] of kind Food
  set Hamburger position to x 20 y 220
  camera follow sprite Hero
```



Change the 'Y' parameter to 220.
We can't use the Sprite positioner
because this is only when positioning
with in the screen size.

Hardware Break



Now let's load what we have on to the BrainPad.

**EXTRA
CREDIT**



Code to Blocks:

JavaScript:

```
Hamburger.setPosition(Math.randomRange(0, scene.screenWidth()), Math.randomRange(0, scene.screenHeight()))
```

Block:

The block is a blue horizontal bar with a notch on the left and a bump on the right. It contains the following elements from left to right: the text 'set', a red rounded rectangle containing the text 'Hamburger' with a small downward arrow, the text 'position to x', a purple rounded rectangle containing the text 'pick random' followed by a white circle with the number '0', the text 'to', a dark blue rounded rectangle containing the text 'screen width', the text 'y', another purple rounded rectangle containing the text 'pick random' followed by a white circle with the number '0', the text 'to', and a dark blue rounded rectangle containing the text 'screen height'.



Code to Blocks:

JavaScript:

```
scene.cameraFollowSprite(Hero)
```

Block:

camera follow sprite **Hero** ▼