BOULDER DASH

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# Terrain types

## Border wall

Picture:



Behaviour:

* Can’t be passed through by anything

## Start/exit

Picture:

As the border wall but flashing

Behaviour:

* At the start of a level, the start field is flashing
* When all the rocks have fallen, the start field spawns a player
* At the start of a level, exit field is closed (cannot be walked on),
* Exit field opens (starts flashing and can be walked on), when the player has collected the required amount of diamonds

## Inner wall

Picture:



Behaviour:

* As the border wall

## Dirt

Picture:



Behaviour:

* Can be walked on by a player
* If walked on, gets destroyed
* Can’t be passed by:
  + Rocks
  + Diamonds
  + Butterflies
  + Crawlers
* Can be eaten by the green goo (special level)

## Green goo

Picture:



Behaviour:

* Is animated
* At the start of a level spawns in a group of three
* Can eat dirt to expand
* Won’t expand into:
  + Rocks
  + Walls
  + Empty space
* Stops when there’s nothing more to eat
* If can’t expand anymore, turns into diamonds
* If walked on by a player, gets destroyed or player is killed - choice

# Entity types

## Player

Pictures:



Behaviour:

* Can move up, down, left and right
* Can walk onto:
  + Empty space
  + Dirt
  + Diamond
  + Crawler
  + Green goo
* Can’t walk onto:
  + Bordering walls
  + Inner walls
  + Rocks
  + Butterflies
* Spawns in the start field
* Despawns in the exit field
* Dies when:
  + Crushed by a falling rock
  + Touched by the Crawler
* Can hold a rock on his head, when walked on the dirt, that had a rock above (rock’s not falling)
* Can collect diamonds

## Rock

Picture:



Behaviour:

* Affected by gravity
* Falls if stacked vertically:
  + If there’s a place downright or down left
  + If is not blocked on the sides by a wall or dirt
* Can crush:
  + Player
  + Crawler
  + Butterfly
* Can be pushed by a player if:
  + there’s not a second rock in a line in the pushing direction
  + is not currently falling
* Can kill player if falling

## Diamond

Picture:



Behaviour:

* Is animated
* Affected by gravity
* Falls like a rock
* Can’t crush anything
* Can’t be crushed by anything
* Can be collected by a player
* Appears in a 3x3 formation after crushing the butterfly

## Crawler

Picture:



Behaviour:

* Is animated
* Walks
* Sticks to the one side
* Can kill player
* Can be crushed by a falling rock

## Butterfly

Pictures:

  

Behaviour:

* Is animated
* Walks like the Crawler
* Can be crushed by a falling rock
* If crushed, produces 3x3 grid of diamonds
  + Destroys dirt
  + Doesn’t destroy walls or rocks

# Goal

Get the required number of diamonds, and then get out through the exit to the next level

# Game over

1. Time runs out
2. Player is crushed by a falling rock
3. Player is touched by the Crawler
4. Player cannot exit the current position (rock positions??)

# Modifiers (header menu)

1. Required diamonds – number of diamonds required to pass the level
2. Possessed diamonds – number of diamonds player has collected
3. Level number
4. Time limit – 150s per level
5. Score

# Scoring

1. 10 points per diamond
2. 1 point per left second

# Additional mechanics