

```

1 using UnityEngine;
2 using System.Collections;
3
4 public static class Difficulty {
5
6     static float secondsToMaxDifficulty = 60;
7
8     public static float GetDifficultyPercent() {
9         return Mathf.Clamp01(Time.time / secondsToMaxDifficulty);
10    }
11
12 }
13

```

intialized a difficulty factor

Lerp

$a, b, p$

value =  $a + (b - a)p$

$p = 0$   
value =  $a$

$p = 1$   
value =  $a + b - a = b$

difficulty factor

```

public GameObject fallingBlockPrefab;
public Vector2 secondsBetweenSpawnsMinMax;
float nextSpawnTime;

public Vector2 spawnSizeMinMax;
public float spawnAngleMax;

Vector2 screenHalfSizeWorldUnits;

// Use this for initialization
void Start () {
    screenHalfSizeWorldUnits = new Vector2 (Camera.main.aspect * Camera.main.orthographicSize, Camera.main.orthographicSize);
}

// Update is called once per frame
void Update () {
    if (Time.time > nextSpawnTime) {
        float secondsBetweenSpawns = Mathf.Lerp (secondsBetweenSpawnsMinMax.y, secondsBetweenSpawnsMinMax.x, Difficulty.GetDifficultyPercent ());
        nextSpawnTime = Time.time + secondsBetweenSpawns;

        float spawnAngle = Random.Range (-spawnAngleMax, spawnAngleMax);
        float spawnSize = Random.Range (spawnSizeMinMax.x, spawnSizeMinMax.y);
        Vector2 spawnPosition = new Vector2 (Random.Range (-screenHalfSizeWorldUnits.x, screenHalfSizeWorldUnits.x), screenHalfSizeWorldUnits.y + spawnSize);
        GameObject newBlock = (GameObject)Instantiate (fallingBlockPrefab, spawnPosition, Quaternion.Euler (Vector3.forward * spawnAngle));
        newBlock.transform.localScale = Vector2.one * spawnSize;
    }
}

```

