POLYRAIN AR 1.0

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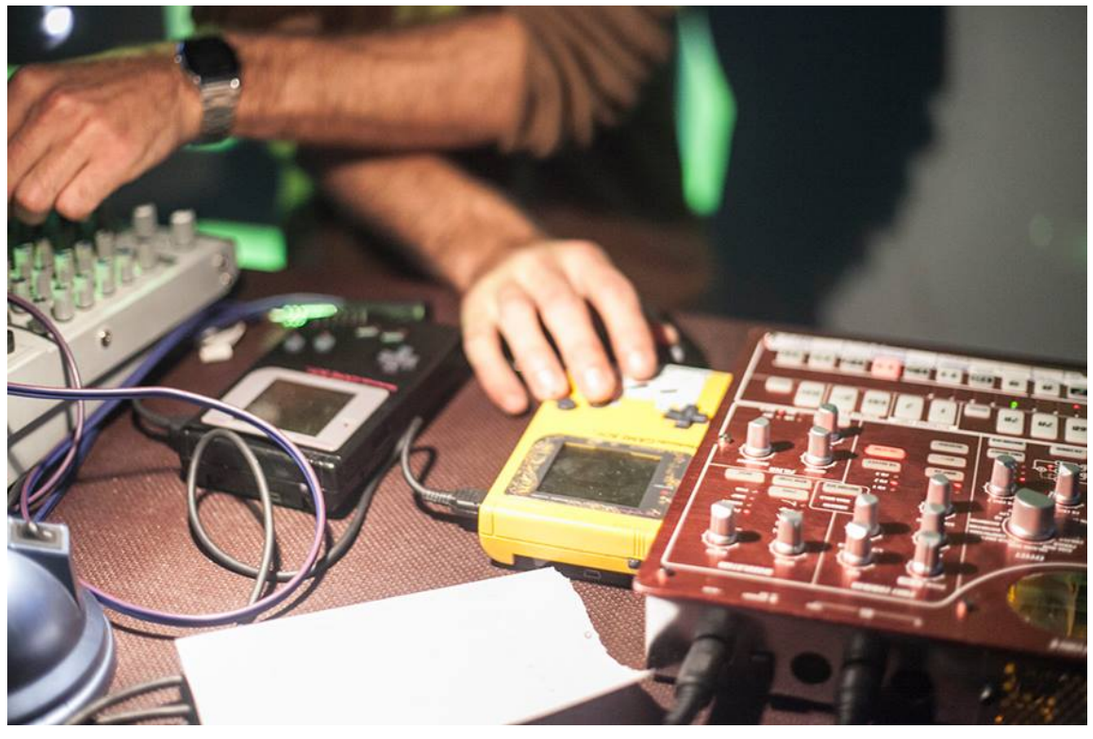
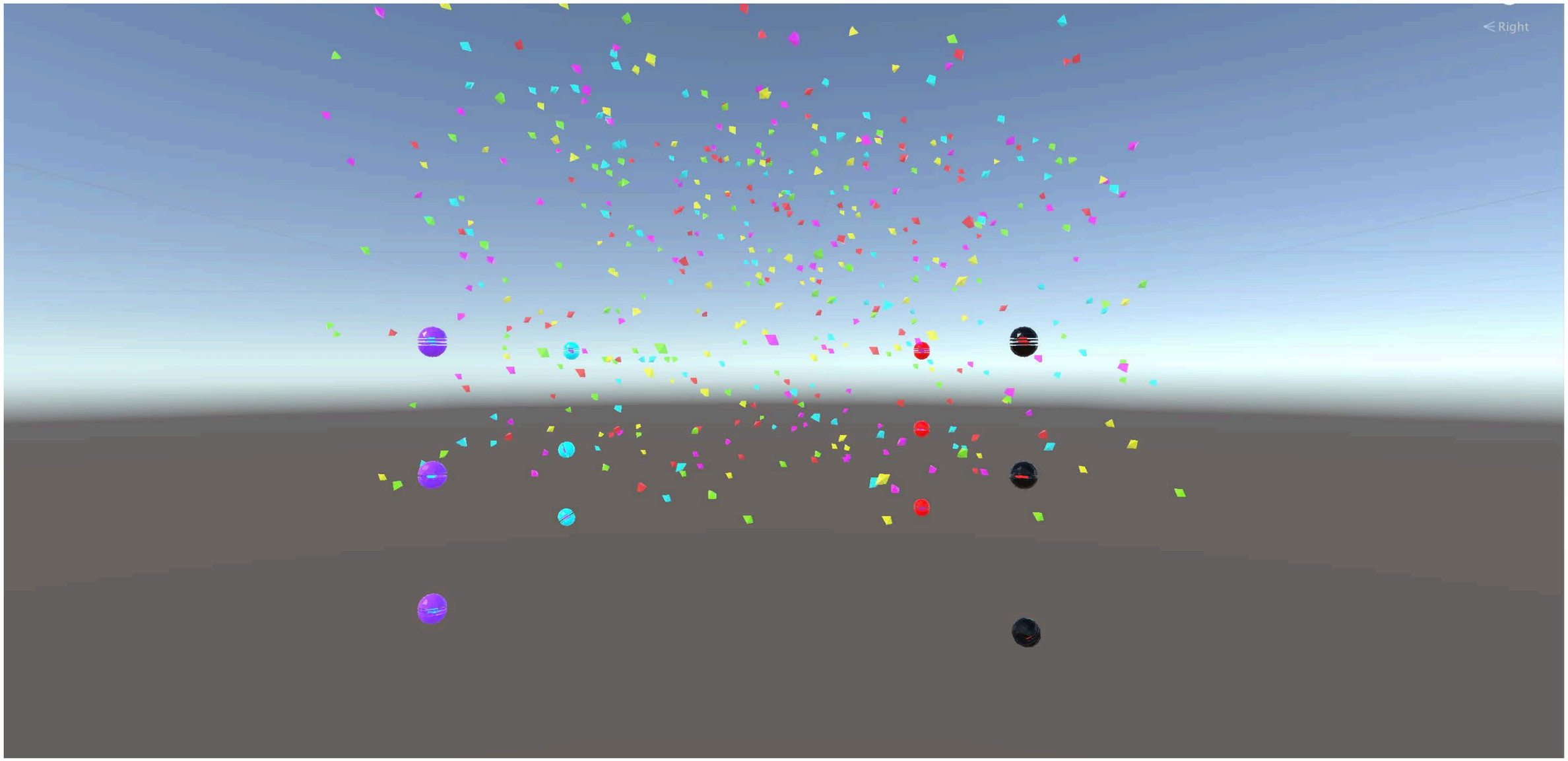
Inspiration und Konzept

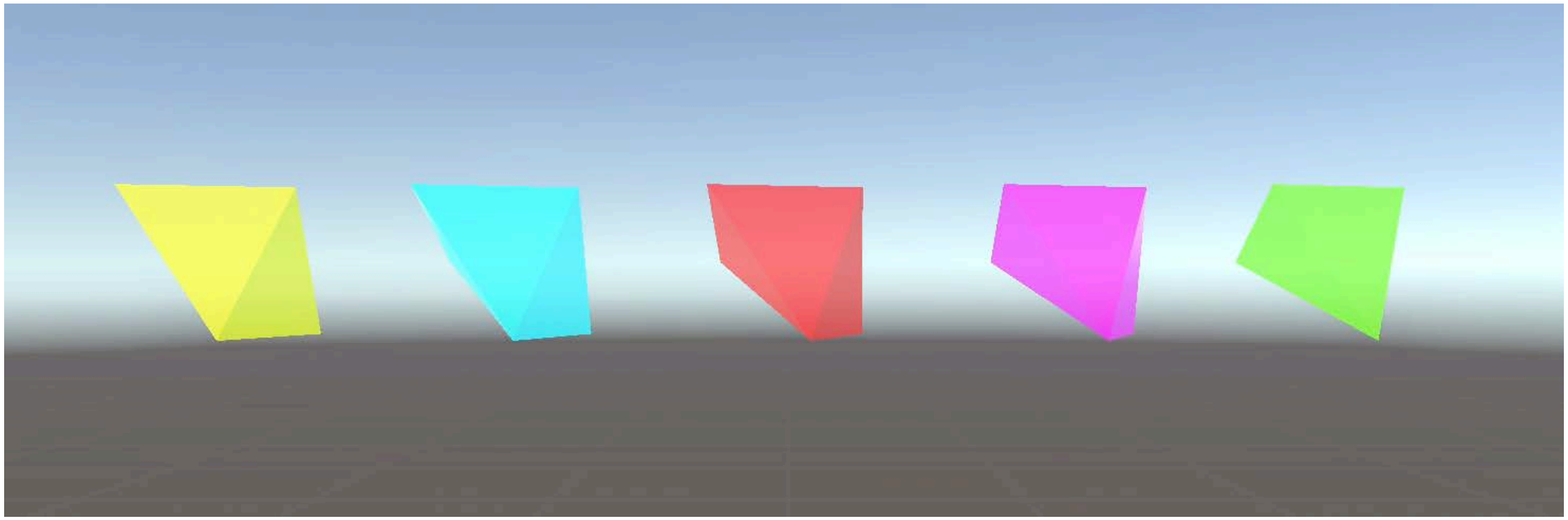
-Elektronische Musik für Unerfahrene
-Persönliche Leidenschaft für Musik
-Aufregende Interaktionen bei Musical Interfaces
-Unkonventionelle Lösungen

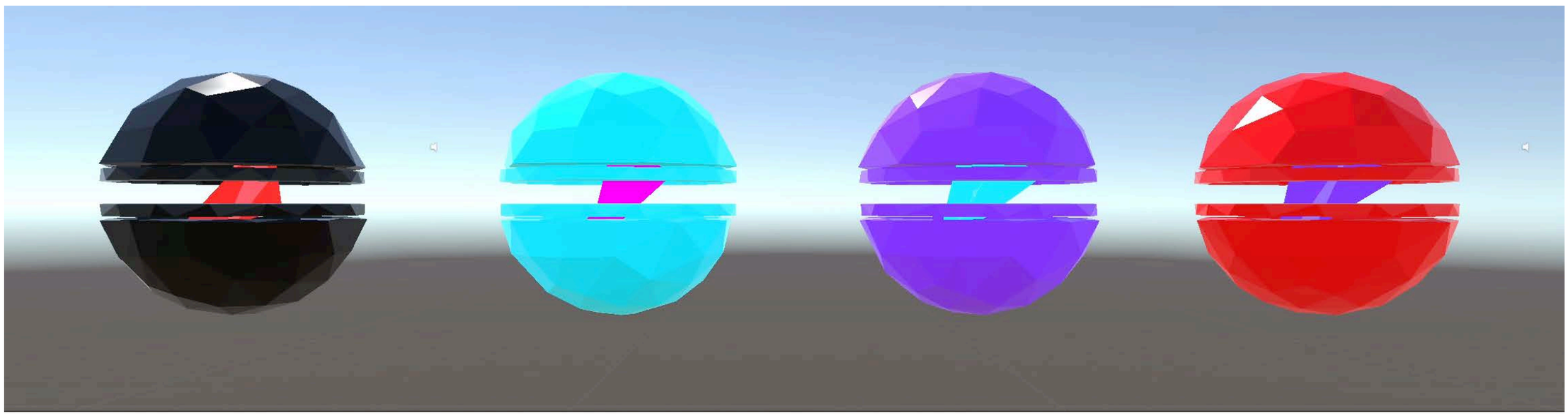


Inspiration und Konzept



Inspiration und Konzept





Phasen

1.-Random Spawner

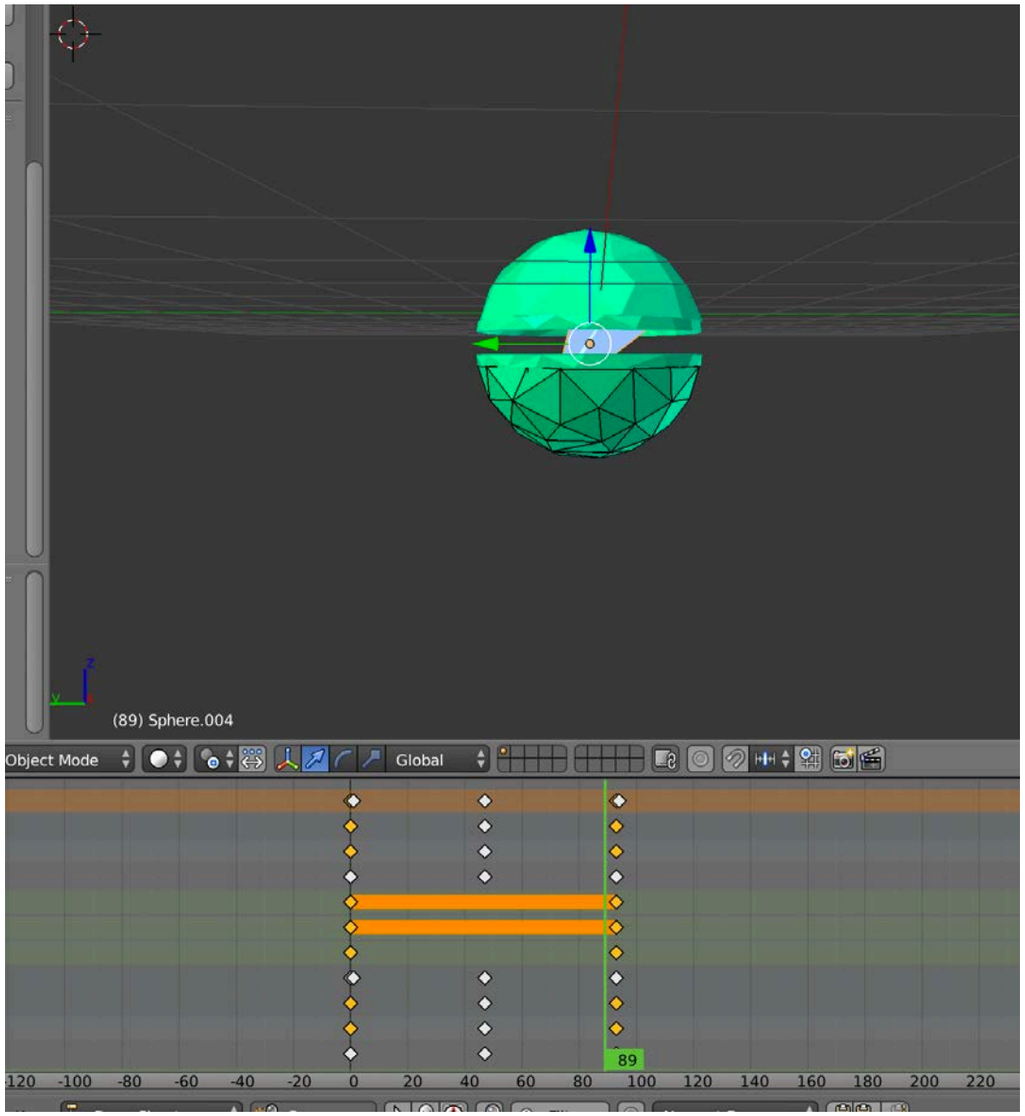
```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class superRandomSpawner2 : MonoBehaviour {

	public GameObject[] spawnees;
	public GameObject[] spawnPoints;

	/// The height all objects need to be spawned at.
	public float spawnPositionY;

	public float radius = 2;
	public float spawnTime = 600f;

	int spawneeIndex;
	int spawnPointIndex;
	Vector3 spawnPosition;

	void Start() {
		InvokeRepeating ("Spawn", 2, 2);

		spawnPoints = GameObject.FindGameObjectsWithTag("spawnPoint");
	}

	// Update is called once per frame
	void Update () {
		SpawnRandom();
	}

	int GetRandom(int count) {
		return Random.Range(0, count);
	}

	Vector3 GetRandomVector (Vector3 vec) {
		Vector3 randomVector = (Random.insideUnitSphere* radius) + vec;
		return new Vector3(randomVector.x, spawnPositionY, randomVector.z);
	}

	void SpawnRandom() {
		spawneeIndex = GetRandom(spawnees.Length);
		spawnPointIndex = GetRandom(spawnPoints.Length);
		spawnPosition = GetRandomVector(spawnPoints[spawnPointIndex].transform.position);
		Instantiate(spawnees[spawneeIndex], spawnPosition, spawnPoints[spawnPointIndex].transform.rotation);
	}
}
```

2.Timed Spawner

```
using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class TimedSpawn : MonoBehaviour {

	public GameObject spawnee;
	public bool stopSpawning = false;
	public float spawnTime;
	public float spawnDelay;

	// Use this for initialization
	void Start () {
		InvokeRepeating("SpawnObject", spawnTime, spawnDelay);
	}

	public void SpawnObject() {
		Instantiate(spawnee, transform.position, transform.rotation);
		if(stopSpawning) {
			CancelInvoke("SpawnObject");
		}
	}
}
```

Phasen

3.-Erstellung von 3d Objekten (Blender)



-Import to Unity (animator)

4.Destroy Objects After time

```
.17578125using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class destroyer : MonoBehaviour {

	public float lifeTime = 10f;

	// Update is called once per frame
	void Update () {
		if(lifeTime > 0) {
			lifeTime -= Time.deltaTime;
			if(lifeTime <= 0) {
				Destruction();
			}
		}

		if(this.transform.position.y <= -20) {
			Destruction();
		}
	}
```

-Vermeidet Überladung von Objekten

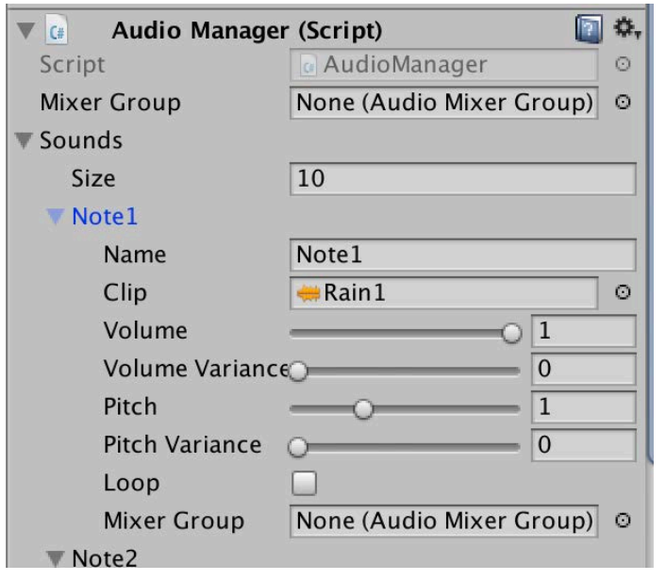
Phasen

5.-Collision Script

```
.17578125using System.Collections;
using System.Collections.Generic;
using UnityEngine;

public class CollisionScript3 : MonoBehaviour {


    public AudioSource collisionSound;
    public GameObject EnemyParticle;

    // Use this for initialization
    void Start () {
    collisionSound = GetComponent<AudioSource>();
    }

    // Update is called once per frame
    void Update () {
    }

    private void OnCollisionEnter (Collision collision)
    {

          if(collision.gameObject.tag == "target"){

          FindObjectOfType<AudioManager> ().Play ("Note3");

          Instantiate(EnemyParticle,transform.position,Quaternion.identity);

          //ScaleCubes();

          //sound.Play();
          //??transform.position = Vector3.one * 9999f;
          Destroy(gameObject);

    }

    //private void OnCollisionStay(Collision collision){


}
}
```

-Notes Triggern
-Nur getroffen von object Tag („target“)

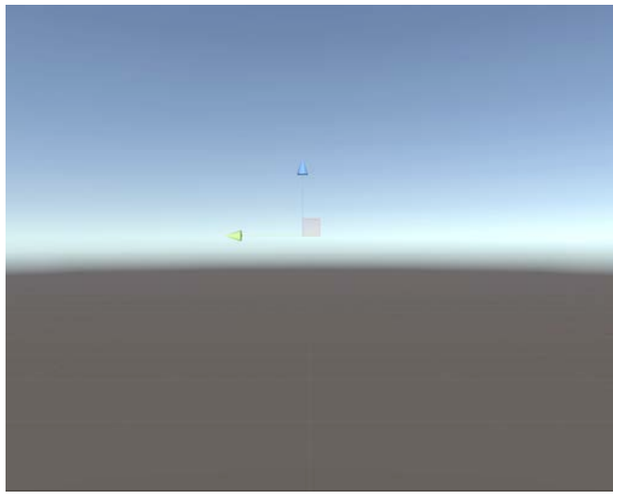
7.Sounds / Audio Manager

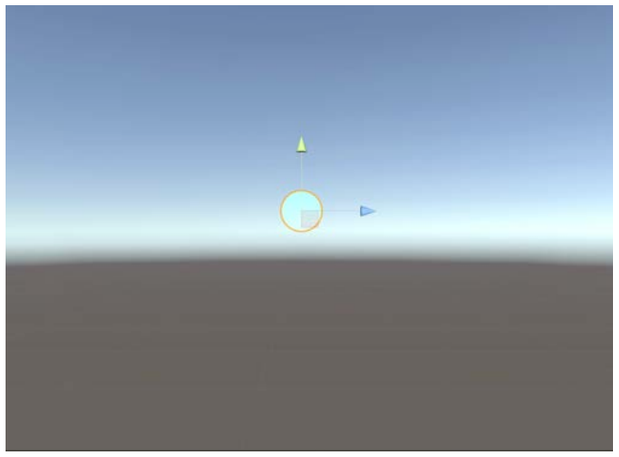


-Ableton Live
-Yamaha TQ5

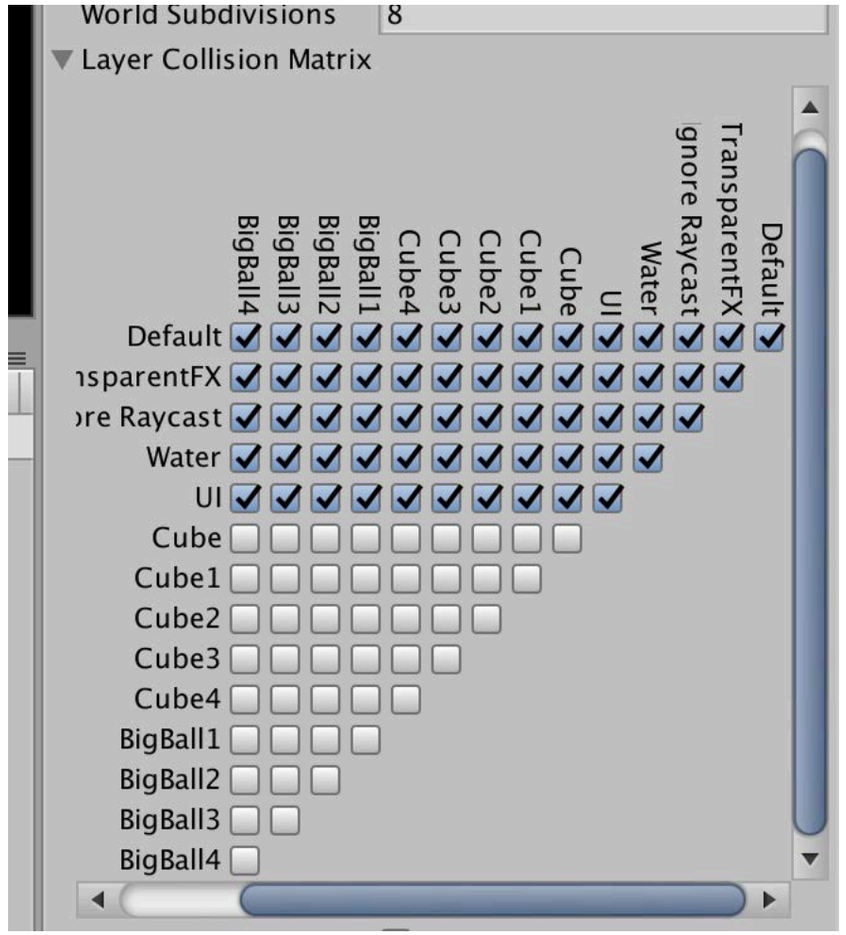
Phasen

8.-Particle Systems





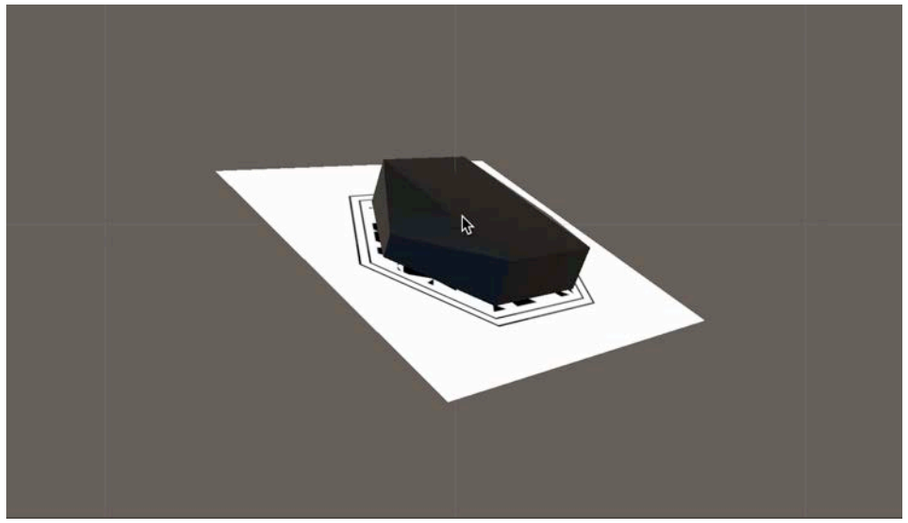
9.-Layers Collision Manager



- Trennt Game Objects in verschiedenen Layers

Phasen

8.AR Marker



9.-Ground Plane Vuforia Asset

- UNITY 3D Patch 2017.3.0p2
für iPhone 6

Erfolge und Positive Erfahrungen

Unity 3d, Blender Software Lernen
Bessere Verständnis von Programmiersprachen
Magische Verbindung mit AR
Neue Ideen für künftige Projekte
Interesse in Particle Systems
Harter Weg aber befriedigend wenn es geklappt hat!

Hindernisse

Audio Helm incompatibility
Ground Plane Erstellung
Importieren von Blender
Umgehen mit dem Unity Interface
Destroy object ohne den Sound zu löschen (Erstellung audio manager)

Links

Unity C# Creating and Deleting Object
https://www.youtube.com/watch?v=XO-E6QaTniQ
Unity C# Random Object Instantiation
https://www.youtube.com/watch?v=kmU7d4Sqblk&t=24s
Unity C# Super Random Instantiation
https://www.youtube.com/watch?v=g4ovE7y5FCc
Unity C# - Trigger A Particle System with a Collision
https://www.youtube.com/watch?v=TEZm8cfJnDg
Creating A Bomb In Unity - Making An Explosion Physics Force - AddExplosionForce
https://www.youtube.com/watch?v=XMDfhHyOacM
Aerial Explosion Tutorial Unity Shuriken
https://www.youtube.com/watch?v=BHdbBtGgfb8
Unity 5 - Importing Animations From Blender / Blender to Unity
https://www.youtube.com/watch?v=3CSUxATQVLw
Unity 3D destroy Game Object On Collide
https://www.youtube.com/watch?v=8nUgf6SSRRs
Introduction to AUDIO in Unity
https://inclips.net/video/6OT43pvUyfY/introduction-to-audio-in-unity.html
Unity 2017 Tutorial - Lighting And Post Processing Low Poly Scene
https://www.youtube.com/watch?v=IkRMMcPBFsc