

## Prototype „Interaction-System“

Code to check for a hit, if the user interacts with an object.

```
using UnityEngine;

/*
 * Interaction component using Ray tracing to calculate the position of the
 * hit object
 *
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 */
2 references
interface Interactable
{
    1 reference
    public void interact();
}

0 references
public class InteractionComponent : MonoBehaviour
{
    2 references
    public Transform interactor; //src transformation
    1 reference
    public float InteractRange = 5; //Maximum range to interact with object

    0 references
    void Update()
    {
        //Check the specific key
        if (Input.GetKeyDown(KeyCode.E))
        {
            //send a ray to searched object
            Ray directedRay = new Ray(interactor.position, interactor.forward);

            //If the obejct is hit, execute the method
            if (Physics.Raycast(directedRay, out RaycastHit hitInfo, InteractRange))
            {
                if (hitInfo.collider.gameObject.TryGetComponent(out Interactable interactObj)) {
                    interactObj.interact();
                }
            }
        }
    }
}
```

The interactable object receives a component, containing the following code which is executed after interacting with it.

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

0 references
public class InteractExample : MonoBehaviour, Interactable
{
    1 reference
    public void interact()
    {
        //execute wathever after ingame interaction
        Debug.Log("Interaction successfull");
    }
}
```