Technical Design Document - Collide

## **Game Engine**

Godot 4.3 has been selected as the game engine, since it is capable of creating a 3d game with modern technologies.

### **3D Objects**

Player:

Round object with two legs, which will be a light color.

Mob:

Round object with two legs, which will be a dark color.

### **World**

Collision Detection:

Intersection between player and mob, which can be calculated by utilising the vector3 describing the position of each object.

Physics:

Gravity will be the only implemented physic, which will prevent player and mobs from incrementally increasing distance to ground.

Interaction:

To interact with the world the arrow keys can be utilised to control the player.

### **Logics**

Game Logic:

When mobs collides a flocking behavior will be performed, which increases the possibilty of a collision between player and mobs.

Artificial Intelligence:

Mobs will move around in the world, and act as AI’s.

### **Networking**

To get a smooth multiplayer experience between multiple clients, peer-to-peer is nearly a most! This can be achieved with a real time protocol, such as webRTC.

### **Delivery Platform & Hardware/Software Requirements**

Delivery Platform:

Game will be avaiable on computer, since keyboard input is needed.

Hardware Requirements:

Minimum since a capable game engine is used.

Software Requirements:

Linux and Windows will be the only supported operating systems.