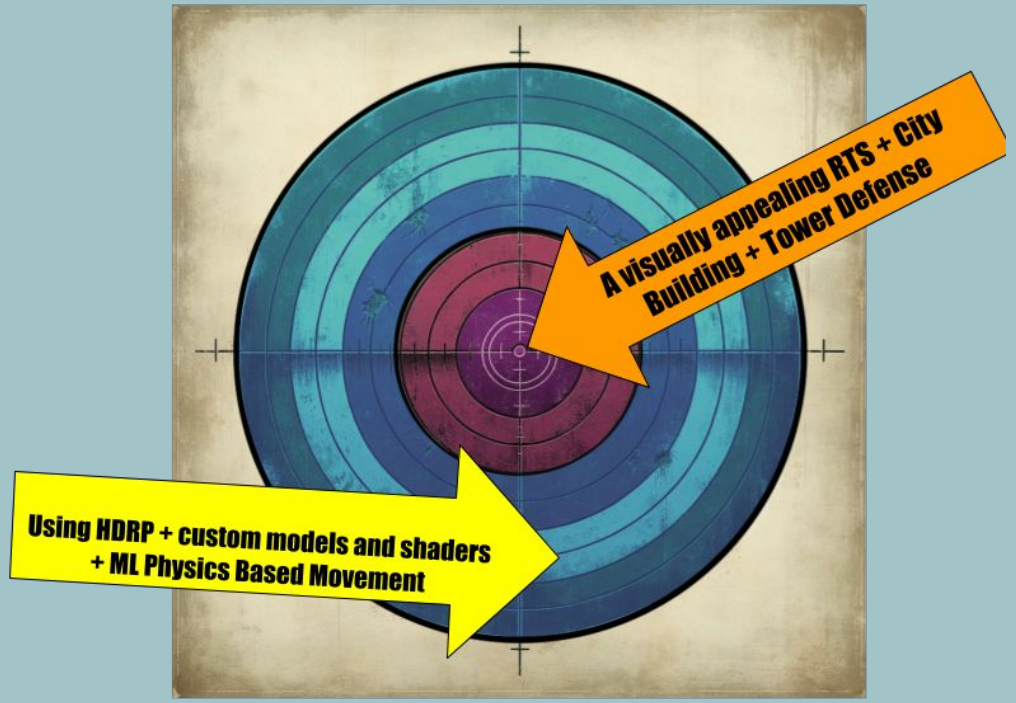
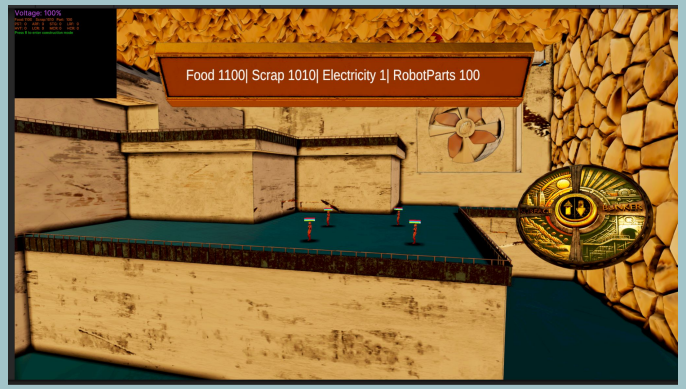
Alpha Release:
Doomsday:
Underground Uprise
Team: Tri-Hard
- Matija Jajcinovic
- Haorui Tan
- Hongbo Chen

Our Goals

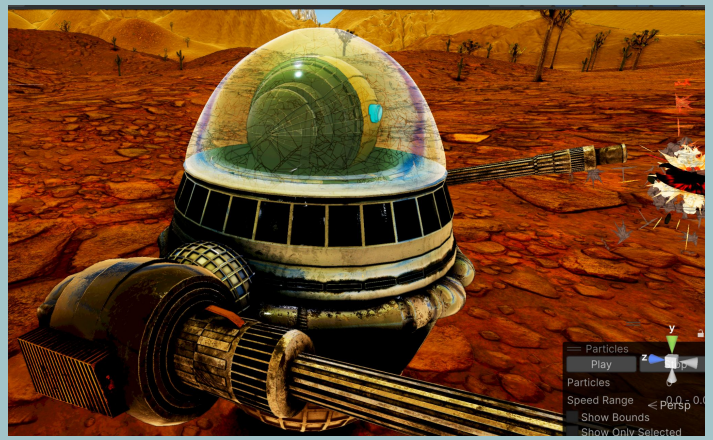

A visually appealing RTS + City Building + Tower Defense
Using HDRP + custom models and shaders + ML Physics Based Movement

Results

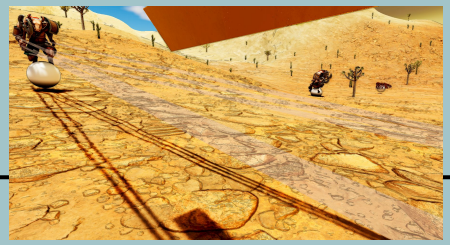


- 3 Layer like suggested done
- controllable unit
- build system for both bunker

  and surface base

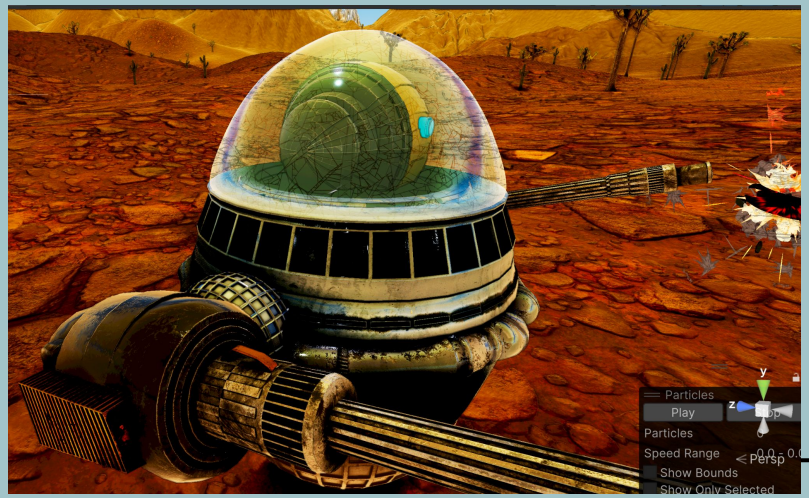


- detailed visuals
- ML animation



Combat Bot

- no fixed animation but PID + force based logic and gun aiming
- movement combination of Position PID and Navmesh
- custom modell
- abstract classes to easily implement more guns (only one due to modelling time cosntraints)

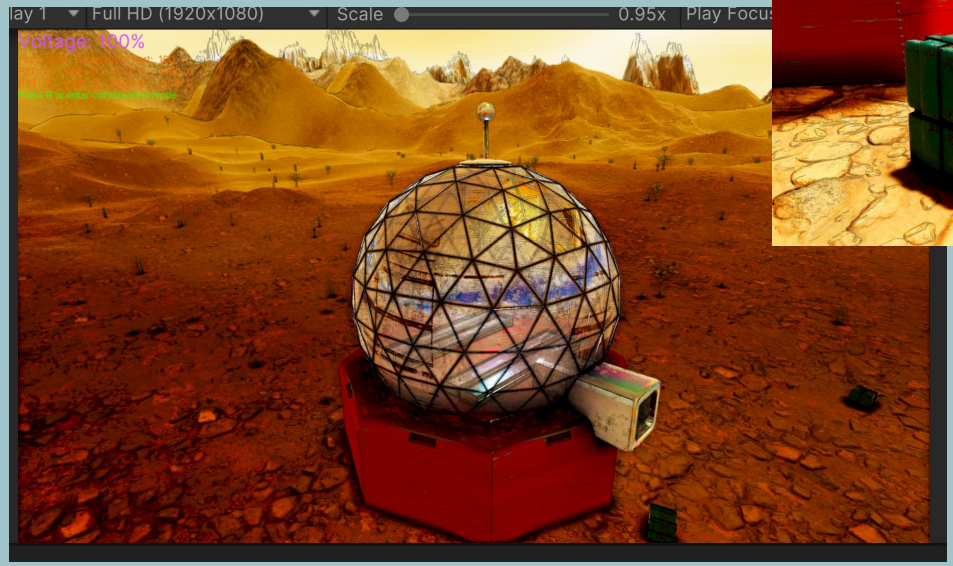


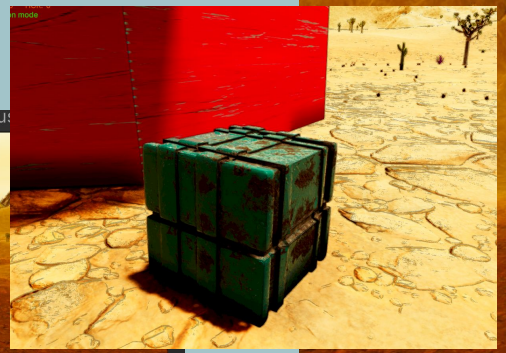
Worker Robot

- ML trained
- goes from A to B
- lot of work done to make it work

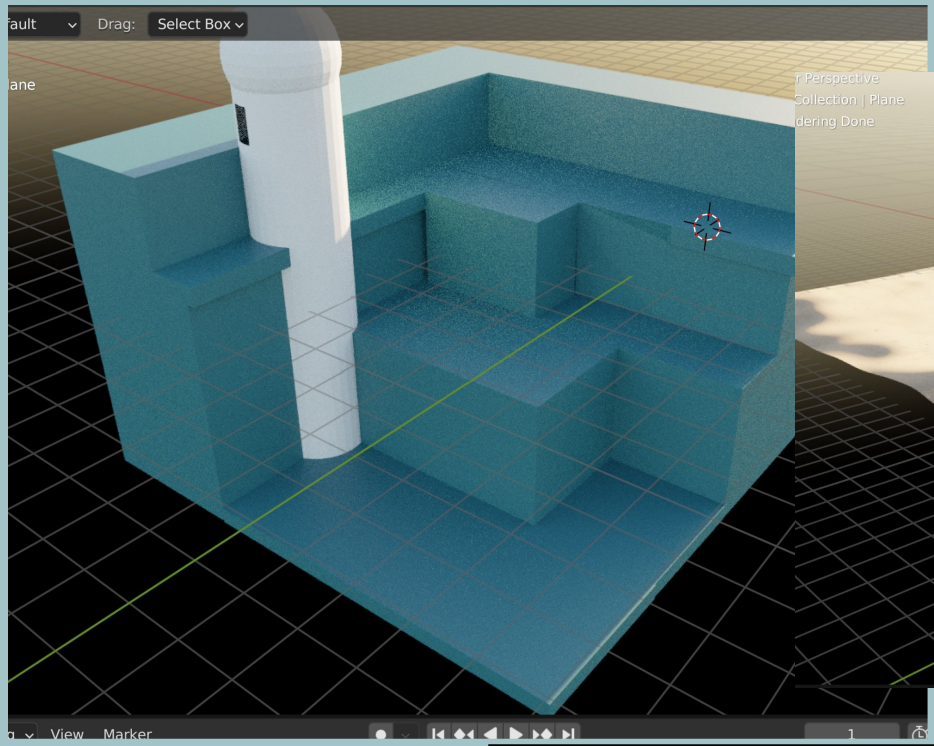
Crop Farm and Factory

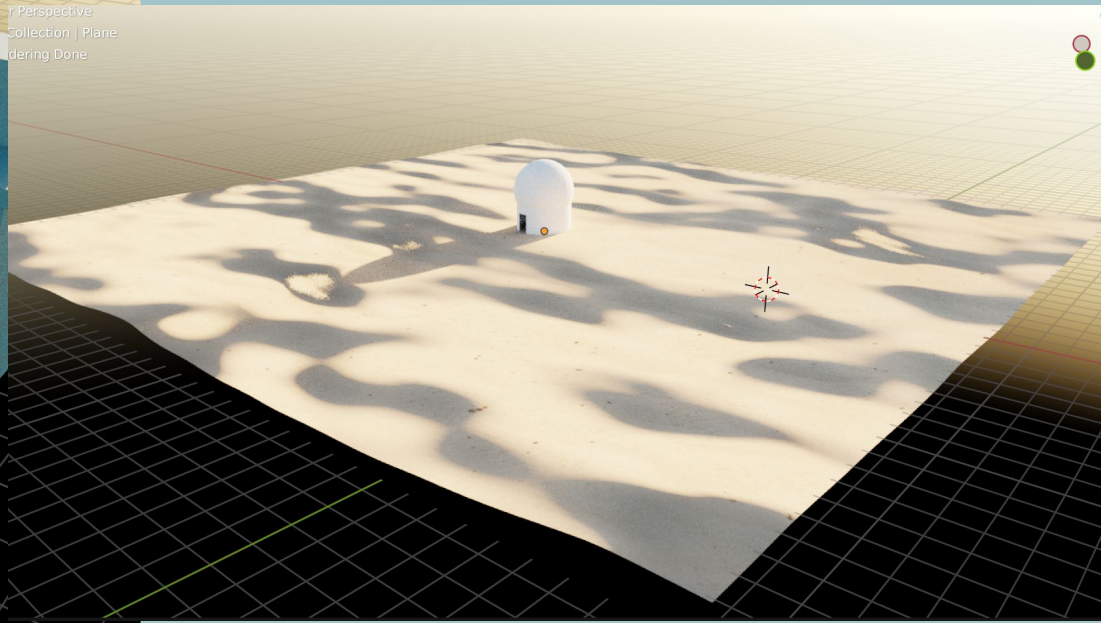
- Outputs every x seconds a box
- will be picked up by Worker
- Worker Spawns with building



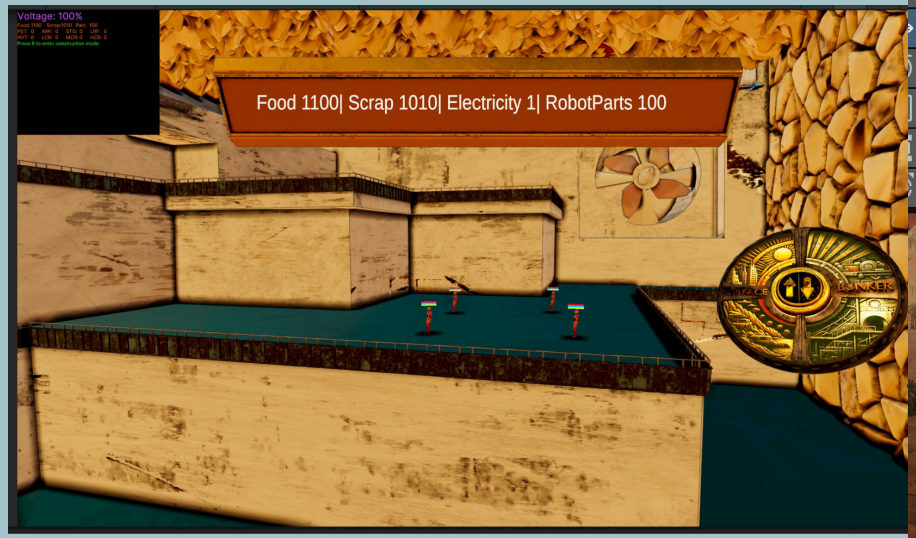


First Drafts - Switch between views

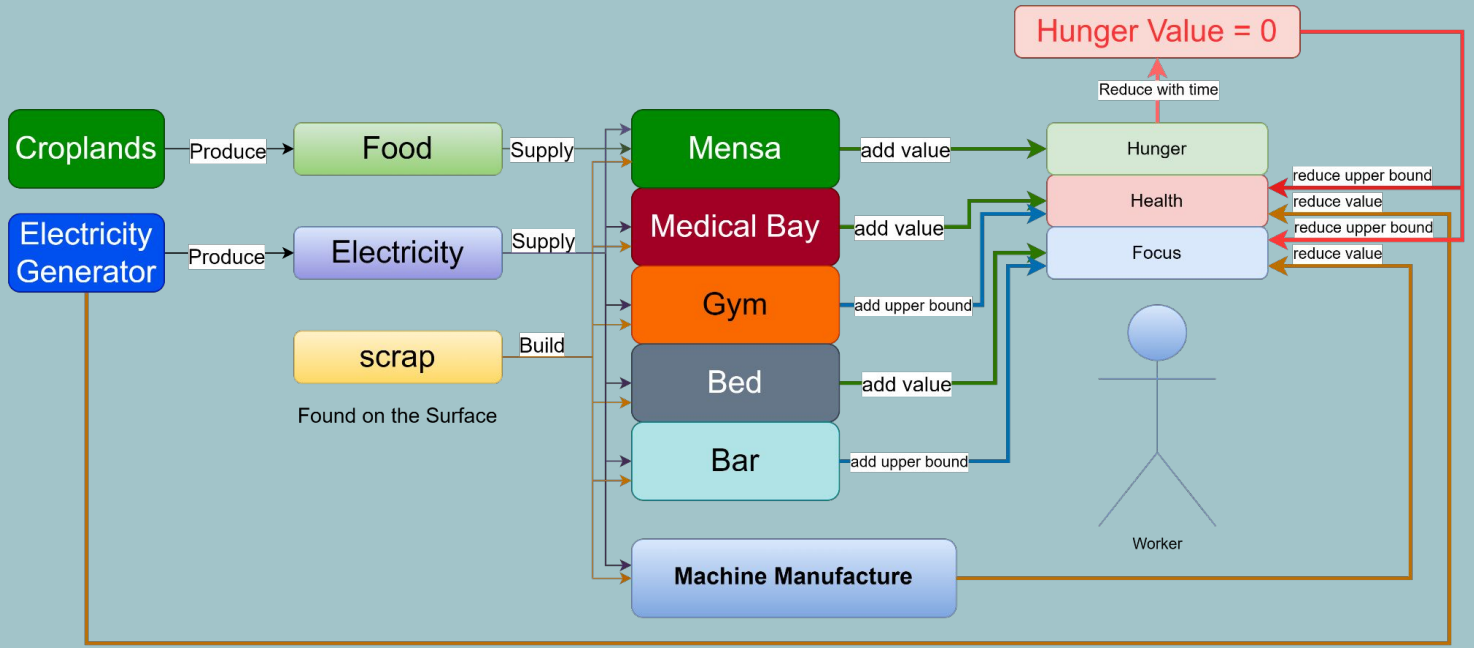




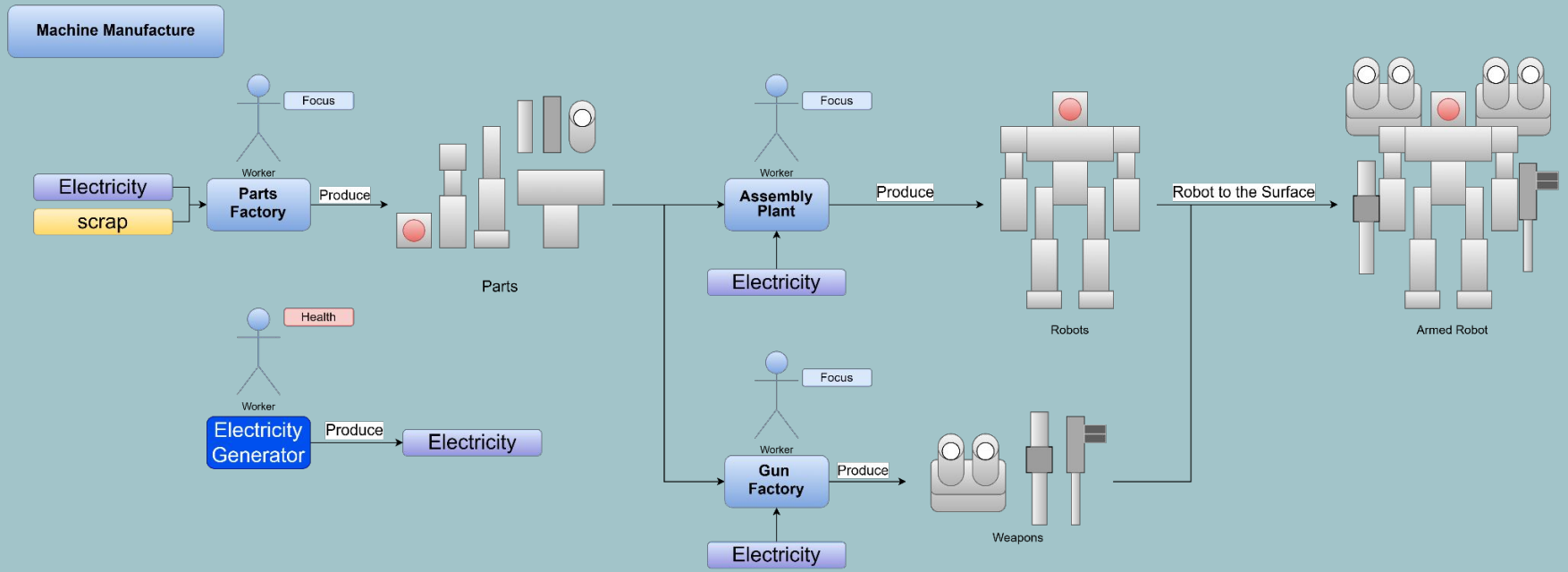
Terrain and bunker



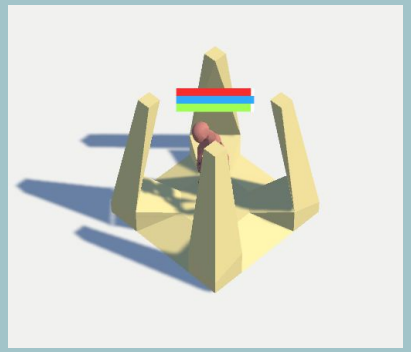
Buildings effects and People's status

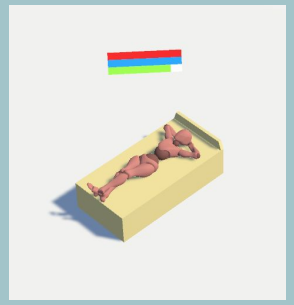


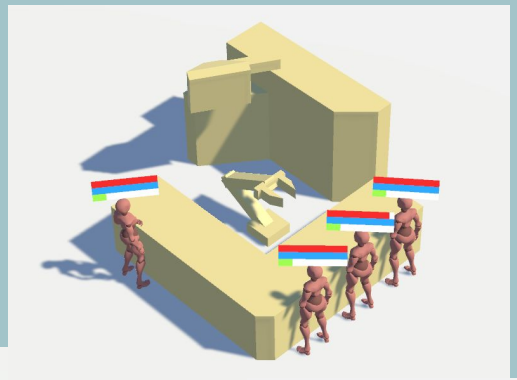
Equipments Produce Process

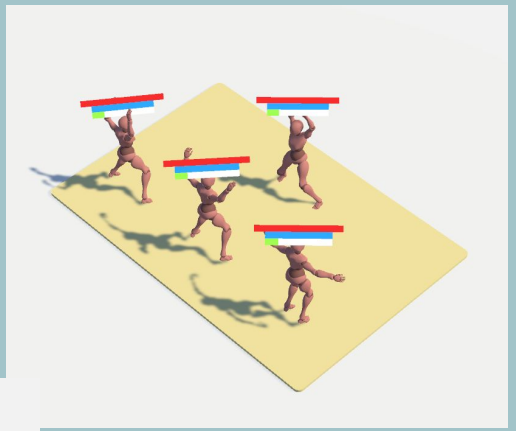


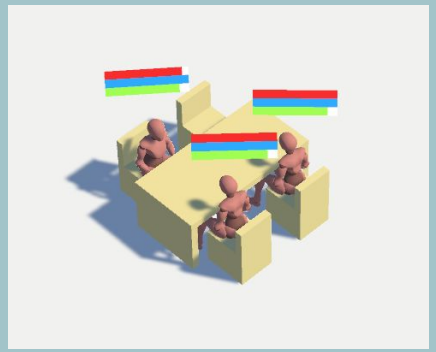
Building Modeling and interact animation

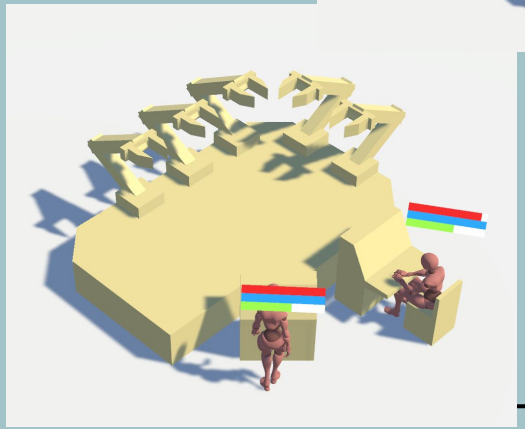


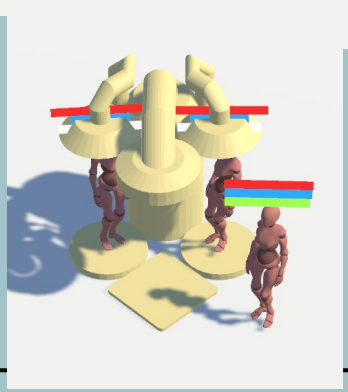






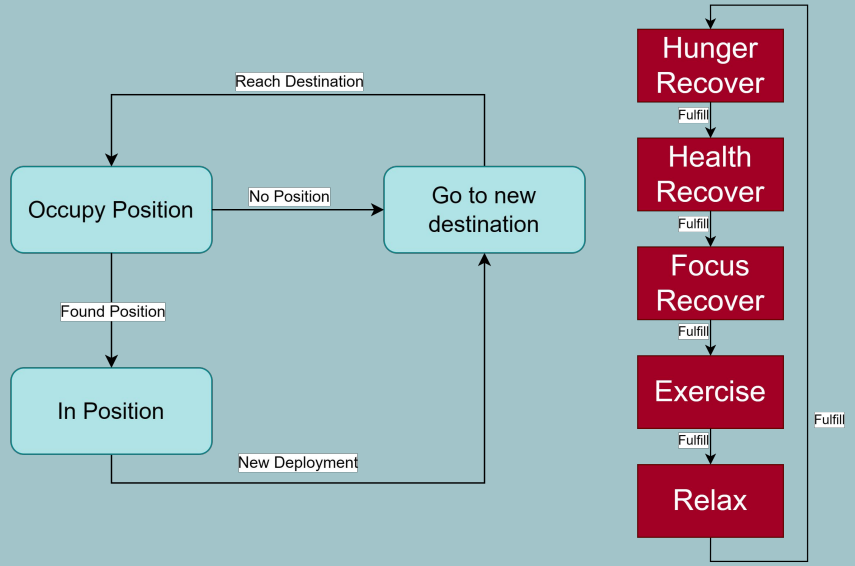






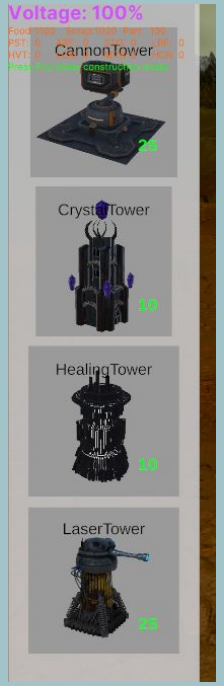
Basement Operation Highlights

1. **Simulating the authentic physiological state of people living in a restricted space**
2. **smart deployment logic**
3. **automatic self-supply logic**



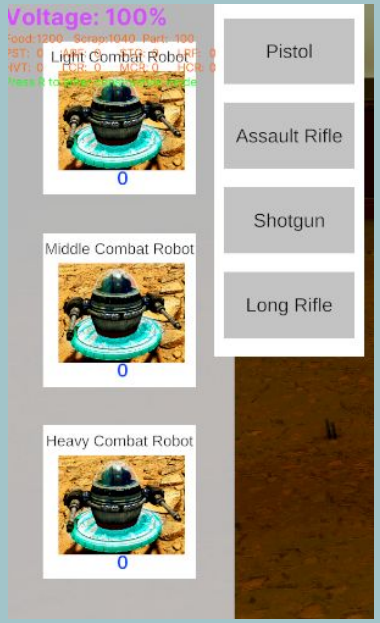
-Surface construction table

- Tab + 1: Tower



-Tab + 2 : Farm

-Tab + 3 : Robot



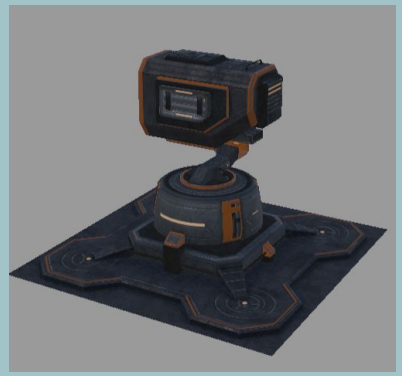
-Tower:

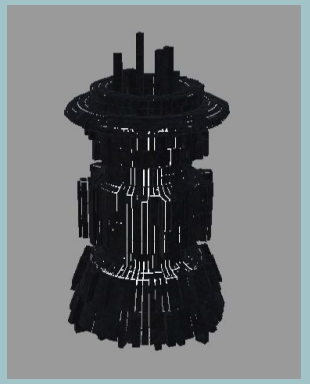
-Laser tower

-Cannon tower

-Healing Tower

-Crystal Tower





-Enemy

-Barbarian

-Bug

-Spider

-Zombie

-Wave System:

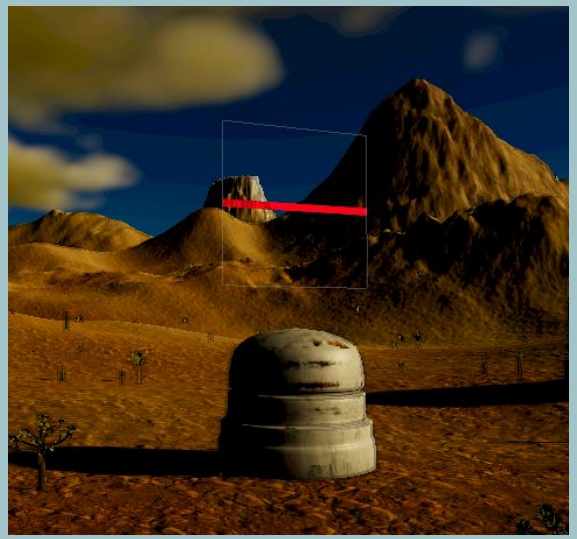
Game starts -> 2min countdown to the first wave:
Quantity on each side: (same quantity on left and right)
Spider: 1 Zombie: 2 Barbarian: 1 Beholder: 2

->After all monsters are killed->Countdown 2 minutes for the second wave:
Quantity on each side: (same quantity on left and right)
Spider: 2 Zombie: 3 Barbarian: 2 Beholder: 3

->After all monsters are killed->Countdown 2 minutes for the third wave:
Quantity on each side: (same quantity on left and right)
Spider: 3 Zombie: 4 Barbarian: 3 Beholder: 4

(Infinite loop, the number of each monster is +1 each time)

-Win loss Condition (If health go 0 => Game over)



THANK YOU
FOR YOUR
ATTENTION!