Physics World – Part I

An experimental 2-dimensional, physics-heavy, sandbox-game-thing.

# Submission Guidelines:

In GitHub, create a branch for your project named “PartI\_Completed”.

Make no further changes to this branch. Make no further branches from this branch. This branch is frozen – a monument to the first step on this project. I will clone that branch, and create a new repo, at the time the assignment is due.

Due at Wednesday 6PM PST

# Base Requirements (83)

* Setup a repository for the Physics World project in GitHub
  + Create a new repo named *Sp21-EGAM102-PhysicsWorld-yourname*
  + Make sure you use the appropriate .gitignore file （给特，一个诺尔）
  + Add me to your repo as a collaborator. Username: TimHandleyAC
* Place an annotated version of this rubric in the root directory of your Unity project. Save it in Word .docx format. When I download your Part1\_Completed branch, I should find the rubric.
* Pick a theme for your project. Is it side-scrolling? Top-down? In space? A platformer? Underwater? In one sentence, outline the premise for your world.
  + Premise: It is a side scrolling，sci fi in space，adventure，multiplayer platform game.
* Write an AvatarController script that implements physics-based movement. Then, write a few words to explain the controls. What keys do what?
  + Explanation: Press A to move left
  + Press D to move right
  + Press space to jump
* In the Physics 2D Toolset, there are nine different joint-type components. Use five of them in an interesting manner. Outline the usage below: What joint-component did you use, and what did you build with it?（链接）

1. Fixed joint I made a trampoline（上下跳动）电梯，机器人 蹦蹦床
2. Spring joint I made a robot, a robot patrolling a fixed track（围绕中点旋转）卫星
3. Hinge joint I use it to made a Asteroid（像编钟一样旋转）围绕中心一样旋转，自己转
4. Distance Joint I use it to made as a tiny robot which always going around with avatar （追踪主角的追踪器）
5. Target joint I use it

* In the Physics 2D Toolset, there are five different effector-type components. Use three of them in an interesting manner. Outline the usage below: What effector-component did you use, and what did you build with it? （范围）

1. Surface effector，I use it to made a conveyor belt，anything fall down on this object，will have a force to bring them rolling to right自己滚 传送带
2. Area effector

I use it to made a elevator which is when any object come close，it will give them a vertical force to let them jump or fly是一个类似加速带的东西，升降机

1. point effector

My original plan is make a twin satellite. However it doesn’t work as I thought

Therefore，I turn it into a clock.两个在一起 卫星

# Stretch Goals:

* (+2 to +3 pts ea) Interesting usage of different joint-type components. Outline the usage below: What joint-component did you use, and what did you build with it?



* (+2 to +3 pts ea) Interesting usage of different effector-type components. Outline the usage below: What effector-component did you use, and what did you build with it?



* (+2 to +3 pts ea) A more elaborate AvatarController. Your script does more than just physics-based movement. It does unexpected and interesting stuff. What does it do? 有趣的事情
  + Feature 1: it can shooting
  + Feature 2:
  + etc.
* (+2 to +3 pts ea) A trigger collider with an interesting effect. When the collider is triggered, something happens. How do you trigger the trigger, and what happens?
  + Trigger 1:
  + Trigger 2:
  + etc.
* (+1 to +10) Other. Something nifty related to physics or the Unity physics engine. Explain: What is your nifty thing? What is the physics connection? 其他有关联的
  + Nifty thing: