

# Planning Document

## Response to Critiques

The main critique is that balancing is very important. We agree with this and will definitely take this in mind. We will probably also take up the suggestion to first just make it a multiplayer game and play it a couple of times to see strategies emerging before bothering with the AI.

## Group Inventory

Dan, Xixi and Tessa have pretty similar skills. All of them are relatively 'general' programmers. Nate is good with graphics - both the technical side and the art side. If we reach the point where we want to implement sound, someone will have to take this up, although we don't have anyone specialising in it. Sound is a 'long term' goal though, and might not make it to the game.

## Tools Choices

We will stick to JavaScript. For the last project, Nate already wrote a model loader that would come in useful for this project too. Our game will not be very heavy on the graphics so JS should be fine, and we're all used to it by now.

We will use GIT for version control. We will probably keep one or more documents to keep track of things. (Design document, To Do list, etc...).

## Division of Labor

We will probably make a to do list with some items prioritized. Whenever you are ready to start something new, you just pick whatever from the list. We will talk about what things need to be done first to make sure there are no bottlenecks.

Nate will focus on the graphics.

Dan would like to work on the AI (this will be in a later stage).

Tessa likes to do 'GUI/HUD stuff'.

Xixi likes to build object structures and their relation functions

## Milestones

*Signs of Life* - We will have a visible map structure. Preferably the planets are already selectable/buttons.

*Tech Demo* - We should pretty much have a working multiplayer version: planets function (at

least gathering resources and producing units), it's possible to capture other planets. Balancing will still need to be done. Battle between armies will be ready.

*Play Test* - The game should be largely done including an AI opponent. At least one map will be properly playable. Things like the Campaign and possibly (but preferably not) a few types of units etc. can be left for the week after.

### Risks

It might prove hard to make a realistic AI that is fun to play with. This can't really be avoided. If it doesn't work out, we'll still have a multiplayer game, but it would be much more fun to be able to play single-player.

If we run out of time we might not have as many different units/planets as we would like.

Scene design may also be a challenge that we need to make the galaxy challenging but not too difficult.

### Design Decisions

Turn-based.

Game Start:

-Control 2 planets

1. Resource Gathering Planet

2. Factory Planet

-Can only build simple soldier unit to start with

-Can see entire map to start

Starting solar system:

-has  $x < 10$  planets

-closer planets to player start have fewer guards

-all planets are neutral and stable

-These are research planets with some research already unlocked that you gain when you capture them or resource / factory planets

Resources:

-Gold/Money/Credits

-Anti-matter

-Steel

-Food (?)

Planets:

-All planets produce some amt. of gold all time

- Specific planets will be “resource” planets that produce steel or anti-matter etc.
  - These can be upgraded to produce resource faster
- Other planets will be “factory” planets that use resources to produce units
  - To start, can only build basic soldier ship
  - To access a new unit, first unlock the technology, then ‘buy the machine’ - upgrade the factory.
- Non-specific planet
  - Can work out details later
- Research / Academy Planet
  - Researches technologies/buildings that modify the game
  - Example. build market to allow converting gold to other resources

#### Ships:

- Two types of defense:
  - 1.Shields (health buffer)
  - 2.Armor (actual health)
- Two types of weapons:
  - 1.Lasers (better against shields)
  2. Missiles (better against armor)

It will be possible to zoom in/out. This way you could get the whole galaxy in your screen, but then it would be too small to do real things with it. By being able to zoom from small to big we eliminate the need for a minimap.

#### Win condition:

- The basic win condition is ‘eliminate the enemies’. (Possibly just all factories).
- The campaign can have many different goals:
  - Eliminate enemy
  - Capture certain region
  - Capture certain nodes
  - Get each single planet