# Design Document for Gasteroids

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## Intro

Skillfully pilot your ship through space breaking up rocks to release valuable unobtanium gas. Be careful, the gas clouds are flammable!

## Gameplay description

2d single screen Asteroids-style gameplay. Shooting rocks does not score points but instead releases gas clouds. The clouds are “mined” by stopping your ship in them for a couple of seconds. Collision with asteroids or flaming clouds causes damage; ships have an armor meter acting as the health bar.

Difficulty scales by increasing the number of asteroids on the screen simultaneously.

## Artistic style outline

Art is whatever sprites I can find on opengameart or other free sources. UI will generic Unity object unless I feel like polishing it.

## Systematic breakdown of components

Title Screen

Intro Screen

Gameplay Screen

End Screen

## Asset breakdown

| Name | Type | Description/Picture |
| --- | --- | --- |
| Player Ship | Sprite |  |
| Player ship main thruster | Animated Sprite |  |
| Player ship impulse/attitude thruster | Animated Sprite |  |
| Asteroid | Sprite |  |
| Gas Cloud | Animated Sprite |  |
| Flaming Gas Cloud | Animated Sprite |  |
| Player Ship explosion | Animated Sprite |  |
| Asteroid Explosion | Animated Sprite |  |
| Player bullet | sprite |  |
| Player Shoot Sound | Single play sound |  |
| Player mine gas sound | Continuous sound |  |
| Player main thrust sound | Continuous sound |  |
| Player impulse thrust sound | Continuous sound |  |
| Player ship explosion | Single play sound |  |
| Asteroid Explosion | Single play sound |  |
| Gas cloud burn | Continuous sound |  |
| Intro page text | text | Break apart the asteroids with your mining laser to release the valuable unobtanium gas. Collect the gas by stopping your ship in the cloud. Be careful, your laser and your main thruster will ignite the gas clouds. |
| Title font | Font | Douar Outline - Gasteroids |
| Game Text Font | Font | PressStart2P – game text |

## Suggested Game Flow Diagram

Start Game🡪Intro screen🡪loop(gamplay🡪incease level)🡪gameover

## Suggested Project Timeline

| Milestone | Date | Description | Done |
| --- | --- | --- | --- |
| Initial Design Document | 3/22/13 |  |  |
| repository | 3/22/13 |  |  |
| Find assets | 3/23/13 |  | 3/24/13 |
| create game project | 3/23/13 |  | 3/24/13 |
| Create game screens | 3/24/13 | Start, intro, gameplay, gameover |  |
| Make intro, start, and gameover screens usable | 3/24/13 | start🡪intro, intro🡪gameplay, gameover🡪start |  |
| Add intro page text | 3/24/13 | Basic instructions for controls and gameplay |  |
| Add gameover page text | 3/24/13 |  |  |
| Add gameplay screen UI elements | 3/24/13 | Score, lives, level |  |
| Create prefabs for art assets | 3/25/13 |  |  |
| Add ship controls | 3/26/13 |  |  |
| Add ship thruster animation | 3/26/13 |  |  |
| Add collision detection with screen edges | 3/26/13 |  |  |
| Add asteroid spawn | 3/27/13 |  |  |
| Add collision detection with ship and asteroid | 3/27/13 |  |  |
| Add collision detection between asteroid and screen edge | 3/27/13 |  |  |
| add ship shooting | 3/27/13 |  |  |
| Add collision detection between asteroid and bullet | 3/27/13 |  |  |
| Add asteroid explosion | 3/27/13 |  |  |
| Add gas cloud spawn on asteroid shot | 3/27/13 |  |  |
| Add gas collection | 3/28/13 |  |  |
| Add scoring | 3/28/13 |  |  |
| Add player damage/death | 3/29/13 |  |  |
| Add difficulty increase over time | 3/30/13 |  |  |

## Additional Ideas and Possibilities

* Enemy ships
* Asteroids split
* Flaming asteroids
* Power ups
* Boss fight