# 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 ignite | Single play sound |  |
| Gas cloud burn | Continuous sound |  |
| Gas cloud dissipate | Single play sound |  |
| Intro page text | 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 |  |  |
| create game project | 3/23/13 |  |  |
| 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 gameplay screen UI elements | 3/24/13 | Score, health |  |
| 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