

Asteroids

[Source](#)

Data

Ships Left: number

Score: number

Score Record?: number

Target:

 Type: word

 Position: vector

 Velocity: vector

Targets: list of target

Player:

 Position: vector

 Velocity: vector

 Direction: number

Bullet:

 Position: vector

 Velocity: vector

 Duration: number

 Parent?

Bullets: list of Bullet

Render

Display Score, Ships Left, and Score Record at the top-left corner

Draw Player at Player's position facing Player's Direction

Iterate through Targets and draw every Target with its appearance at its position

Draw all bullets

Simulation

Update:

 Targets', Player's, Bullets' Position

 Player's Direction based on Rotate Left/Right

 Player's Velocity based on Thrust

Create Bullet if needed

Collision Detection:

 Target hit by a Bullet update related data

 Player hit by a Bullet/Target update related data

Check State

Input

Rotate Left: boolean

Rotate Right: boolean

HyperSpace: boolean

Thrust: boolean

Fire: boolean

UnderlineJS

[Source](#)

It's a very simple project, but the point she made: details like rendering the underline make a difference and emphasize the craftsmanship within designing for screens is very cool.

Data

You probably don't need any besides cursor positions

Render

Play the simulated guitar sound

Simulation

The Pitch of the sound made is based on the length of each underline, physics

Input

Cursor Movement