

Asteroids

Richard Agbeyibor and Phillip Mercer

Abstract

Our project will be to recreate the Atari classic video game, Asteroids, using the Xilinx II FPGA board. In the game Asteroids, you navigate a spaceship in a simple square wrap around screen and shoot at incoming asteroids and space debris in order to protect your ship. The ship is able to rotate and continuously accelerate based on user input. The difficulties in this project are the number of sprites, the object interactions, and the ship acceleration.

We will separate this game into fundamental modules of game logic, physics, audio, and visual display. Additional modules would be associated with multiplayer game play, such as any wireless transmissions and communications protocols.