

System Level

- _ Allows a game to be played
- _ Renders 3D graphics to a 1024x768 resolution

Ray Tracer (Daniel)

- _ Pipelined ray tracing unit allows for high-throughput image rendering
- _ Support for three primitive object types (sphere, box, and plane)
- _ Support for polygons (if time permits)
- _ Support for lights of various colors
- _ Points on objects obscured from a direct path to a light source will be darkened
- _ Reflectivity (if time permits)

3D Renderer Framework and Game Logic (Ranbel)

- _ Game accepts user input (from keyboard if time permits)
 - _ Game outputs a series of primitive shapes to renderer
 - _ Game ends when ship crashes into an obstacle or the ground
 - _ Background image will be displayed instead of black pixels when a primary ray does not intersect with any objects
 - _ Double buffer to allow for simultaneous reading and writing of frames.
- Without this, partially completed images would have to be rendered to the screen.