# Overview of Lucid3D

Components:

1. Platform support
2. Core support
3. Utility Library
4. Collision Library
5. Dynamics Library
6. Graphics Base Library
7. Deferred Rendering System

Component breakdown:

1. Platform support – abstraction of different platforms and compilers so that all other layers can be platform-agnostic.
2. Core support – memory allocators, math library, threading support
3. Utility library – containers, profiler, debugging aids, extended math and geometry utilities (generate tangents, calculate AABB from vertices, etc…), geometric queries and intersection tests
4. Collision Library – Collision shapes, overlap tests, broadphase, overlap pair cache, contact point generation
5. Dynamics Library – Rigid body simulation, constraint solver, soft body simulation
6. Graphics Base Library – Device creation and management, shader and material management, scene components and management
7. Deferred Rendering System – full deferred lighting and shadowing system