

Architecture Project

- ☐ [git://github.com/mrerrormessage/n-body-architecture.git](https://github.com/mrerrormessage/n-body-architecture.git)
- ☐ Planning
 - ☐ get GitHub working
 - ☐ Implement Algorithm in serial
 - ☐ Write makefile
 - ☐ Write Tests
 - ☐ Write Benchmarks
 - ☐ Data structure consideration
 - ☐ Consider use of different algorithms
 - ☐ Plan for parallel implementations
 - ☐ Consider how work should be parallelized
 - ☐ Write spec. for how this should work
- ☐ MPI
 - ☐ Learn MPI
 - ☐ Download
 - ☐ Write "Hello, World"
 - ☐ Write makefile
 - ☐ Write Unit tests for Algorithm
 - ☐ Plan
 - ☐ Consider how multiple processors should interact with data and with each other
 - ☐ Draw up spec to show this
 - ☐ Implement
 - ☐ Write Code
 - ☐ Compile
 - ☐ Test
 - ☐ Write-about
 - ☐ Disassembly
 - ☐ Benchmark!

- ☐ CUDA
 - ☐ Learn CUDA
 - ☐ Download CUDA (or find a way to access it)
 - ☐ Write "Hello, world" (or equivalent)
 - ☐ Write makefile
 - ☐ Write unit tests
 - ☐ Plan
 - ☐ Consider how CUDA can be used most effectively
 - ☐ Draw up spec to show this
 - ☐ Implement
 - ☐ Write code
 - ☐ Compile
 - ☐ Test
 - ☐ Write-about
 - ☐ Coding experience
 - ☐ Disassembly
 - ☐ Benchmark
- ☐ Writing
 - ☐ Write intro/abstract
 - ☐ Spend a bit of time talking about MPI & CUDA, how different paradigms work with implementation
- ☐ AP: Serial Algorithm finished writing
- ☐ AP: All "Planning finished"
- ☐ AP: MPI Learning and planning finished
- ☐ AP: MPI implementation finished
- ☐ AP: MPI write-about finished
- ☐ AP: "Learn CUDA" and CUDA Planning finished
- ☐ AP: CUDA Coding
- ☐ AP: CUDA Writeup
- ☐ AP: Benchmarking
- ☐ AP- rough draft must be finished

- ☐ AP:Revise Paper and finalize
- ☐ Architecture Project Due