|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameters that were altered | How | From | To | Directory |
| **Size of the simulation box** | Vertices in the blockMeshDict file | (-2.5 -2.5 -5.0)  (2.5 -2.5 -5.0)  (2.5 2.5 -5.0)  (-2.5 2.5 -5.0)  (-2.5 -2.5 5.0)  (2.5 -2.5 5.0)  (2.5 2.5 5.0)  (-2.5 2.5 5.0) | (-0.5 -0.5 -2.5)  (0.5 -0.5 -2.5)  (0.5 0.5 -2.5)  (-0.5 0.5 -2.5)  (-0.5 -0.5 2.5)  (0.5 -0.5 2.5)  (0.5 0.5 2.5)  (-0.5 0.5 2.5) | CFD/constant/blockMeshDict |
|  | Region domain | -0.25 0.25 -0.25 0.25 -0.5 0.5 | -0.05 0.05 -0.05 0.05 -0.25 0.25 | DEM/in.liggghts |
| **Size of the particles/number of particles** | Radius | 0.003 | 0.0015 | DEM/in.liggghts |
|  | Neighbor | 0.001 | 0.0005 | DEM/in.liggghts |
|  | Number of particles | 48000 | 384000 | Changed by changing the size of the particle  (Number of particles needed to fill the hopper) |
| Time step CFD | Time step | 0.00005 s | 0.00004 s | CFD/system/controlDict |
| Time step DEM | Time step | 0.000005 s | 0.000004 s | DEM/in.ligggthts\_run |
| Number of CPUs | Number of CPUs and nodes | 72  6 | 96  8 | RunCFDEMSim.sh |
|  | numberOfSubdomains | 72 | 96 | CFD/system/decomposeParDict |
| Youngs Modulus | youngsModulus | 2.5e7 | 1e7 | DEM/in.ligggthts\_run |
| Exiting particles | bwall1 | Coemmenting the line 54  "fix bwall1 all wall/gran model hertz tangential history primitive type 2 zplane -0.25" |  | DEM/in.ligggthts\_run |