## Particle

# m_id
# m_mass
# m_lastPosition
# m_currentPosition
# m_lastVelocity
# m_currentVelocity
# m_lastAcceleration
# m_currentAcceleration
# m_netForce
# m_drawRadius
# m_collisionRadius
# m_particleColour

+ Particle()
+ ~Particle()
+ getId()
+ setId()
+ getMass()
+ getLastPosition()
+ getCurrentPosition()
+ setPosition()
+ updatePosition()
+ getLastVelocity()
+ getCurrentVelocity()
+ setVelocity()
+ updateVelocity()
+ resetNetForce()
+ getNetForce()
+ setNetForce()
+ getLastAcceleration()
+ getCurrentAcceleration()
+ setAcceleration()
+ updateAcceleration()
+ getCollisionRadius()
+ setCollisionRadius()
+ getDrawRadius()
+ setDrawRadius()
+ getParticleColour()
+ setParticleColour()

## FluidParticle

- m_name
- m_density
- m_restDensity
- m_scalerPressure
- m_pressureForce
- m_viscosityForce
- m_surfaceTensionForce
- m_interfaceTensionForce
- m_gravityForce
- m_gasConstant
- m_viscosityConstant
- m_surfaceTensionCoefficient
- m_surfaceTensionThreshold
- m_surfaceColorCoefficient
- m_interfaceTensionCoefficient
- m_interfaceTensionThreshold
- m_interfaceColorCoefficient

+ FluidParticle()
+ ~FluidParticle()
+ resetForces()
+ getName()
+ setScalerPressure()
+ getPressureForce()
+ setPressureForce()
+ getViscosityForce()
+ setViscosityForce()
+ getSurfaceTensionForce()
+ setSurfaceTensionForce()
+ getInterfaceTensionForce()
+ setInterfaceTensionForce()
+ getGravityForce()
+ setGravityForce()
+ getScalerPressure()
+ getDensity()
+ setDensity()
+ getRestDensity()
+ setRestDensity()
+ getGasConstant()
+ setGasConstant()
+ getViscosityConstant()
+ setViscosityConstant()
+ getSurfaceTensionCoefficient()
+ setSurfaceTensionCoefficient()
+ getSurfaceTensionThreshold()
+ setSurfaceTensionThreshold()
+ getSurfaceColorCoefficient()
+ setSurfaceColorCoefficient()
+ getInterfaceTensionCoefficient()
+ setInterfaceTensionCoefficient()
+ getInterfaceTensionThreshold()
+ setInterfaceTensionThreshold()
+ getInterfaceColorCoefficient()
+ setInterfaceColorCoefficient()