```
module struc
implicit none

type obj
    real :: x=0.0, y=0.0
    real :: vx=0.0, vy=0.0
    real :: ax=0.0, ay=0.0
end type obj
type eng
    real :: k=0.0
    real :: p=0.0
    real :: e=0.0
    real :: t=0.0
    real :: pr=0.0
    real :: virial=0.0
    real :: r2=0.0
    real :: dr2=0.0
end type eng
type conf
    character(23), dimension(2) :: LR = (/"Lennard-Jones Potential","1/r Potential"/)
    character(23), dimension(2) :: V2 = (/"Verlet Method","Velocity Verlet Method"/)
    character(1), dimension(2)  :: LR2 = (/ "L","R"/)
    character(1), dimension(2)  :: V1 = (/"V","S"/)
    integer :: timebond=0
    integer :: n_particles=0
    integer :: step=0
    integer :: Lennar=1
    integer :: VV=1
    real    :: dt=0.0
    real    :: dt2=0.0
    real    :: dr=0.0
    real    :: Cutoff=0.0
    real    :: L1=0.0
    real    :: L=0.0
    real    :: dL=0.0
    real    :: v_max=0.0
    real    :: temp0=0.0
    real    :: temp1=0.0
    real    :: R=0.0
end type conf
end module struc
```