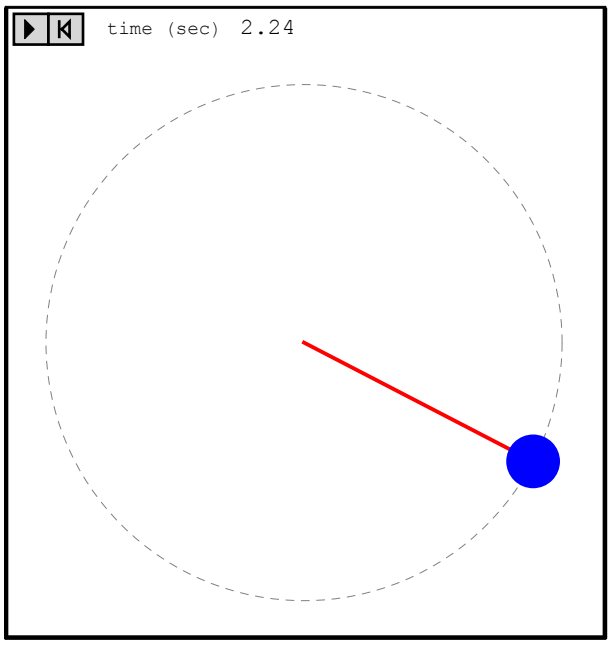
```
(*very basic simulation of damped and driven pendulum, exhibit chaotic motion*)
(*using only Dynamics, not Manipulate. CDF file can be created with just dynamics*)

DynamicModule[{sol,angle,bob,r,time=0,animationRate=1},

Dynamic@Grid[{
             {Trigger[Dynamic[time],{0,Infinity,0.01},animationRate,
                                AppearanceElements→{"PlayPauseButton","ResetButton"}
                     ],
              Style["time (sec)",10],
              Dynamic[time]
             }
             ,
             {
              Dynamic@Show[Graphics[{
                          {Dashed,Gray,Thin,Circle[{0,0},1]},
                          {Red,Thick,Line[{{0,0},bob}]},
                          {Blue,PointSize[0.1],Point[bob]}
                          },ImagePadding→10],ImageSize→300],SpanFromLeft
             }
             },Frame→True,Alignment→Left
             ],

Initialization:→
(
  sol:=First@NDSolve[{y''[t]+0.1 y'[t]+Sin[y[t]]==1.5 Cos[t],y[0]==Pi/4,y'[0]==0},
                     y,{t,time,time+1},Sequence@ndsolveOptions];

  bob:={Sin[(y/.sol)[time]],- Cos[(y/.sol)[time]]};

  ndsolveOptions={MaxSteps→Infinity,
                  Method→{"StiffnessSwitching",Method→{"ExplicitRungeKutta",Automatic}
                 },AccuracyGoal→10,PrecisionGoal→10};
)
]
```


time (sec) 2.24