VR Theatre Proposal

The intention of the VR-Stage project is to develop a simple narrative in a virtual world that
uses 2 to 3 locations or "sets" that are 1:1 matches for props that exist in the physical play
space. Through exact modeling of the objects, and clever use of narrative, the goal is to
create an immersive VR narrative experience where the players have a seemingly full range
of walking motion, while still being confined to a small space.
The project will involve a variety of content development work, including modeling/texturing
and animating objects in 3D, probably using Unity or Unreal. It will involve some audio and
game system development and integration. All of the aforementioned will be "as quick and
dirty as possible" in order to focus effort on the key "critical" technologies or exploration. The
critical components to prototype are:
1. Digital modeling and tracking in both VR and the physical space, so that players
interacting with something in the VR space find the physical match where they expect
it. (Picture being able to sit down in a chair, grab a steering wheel, and drive a virtual
car.)
2. Integration of 'state' information from the physical space back into the virtual space.
(ie. When a player hits a button that exists in physical and virtual space, the pressing
of the physical button triggers a response in the virtual space.)
3. Manipulation of a standing or walking space using springs, cables and pulleys.
Computer controlled movements match the direction of movement in the VR
simulation, but at a much reduced scale.
4. Motion tracking and animation of a human driven "actor" in the simulation. The actor

is able to improv with the player, while helping to establish the narrative without the
need for pre-rendered cutscenes.