**Using After Effects to Simulate a Baseball Going Through a Plane of Glass**

1. Drag broken glass file into timeline. Click on Composition >composition settings to edit.
2. Click on effect menu > Shatter
3. Under the Shatter settings, click on Shape>pattern and choose glass.
4. Change the size of the radius under force 1 to match the size of your baseball.
5. Choose rendered view from the dropdown menu beside view to see what the effect will look like.
6. Click on the crosshairs beside position and move it to the centre of the shattered glass
7. Increase repetition to around 15
8. Go down to camera position and type in -90 y-rotation, this will rotate our picture so that we are looking at a side profile.
9. Go down to lighting and make light intensity 0, light depth 2.5, ambient light, 80
10. Click back on the project and drag the baseball down below the broken glass in the timeline view. Type S to bring up the scale and lower it to scale the baseball appropriately.
11. Select glass layer again, and view wireframe and forces, tweak the force to get the desired number of glass shards.
12. Select baseball, hit p for position, drag baseball to line up with centre of hole (view wireframe and forces view to help you line it up)
13. Preview and edit the force to get the look you want.
14. Animate the ball – select the baseball layer in the timeline view. Move the timeline indicator to the beginning and move the baseball off to the left of the screen. Click on the stopwatch to create a keyframe.
15. Move the indicator to around frame 26 and move your baseball off to the right of the screen.
16. Rotate your baseball by clicking on R to bring up rotation. Bring your timeline indicator back to the beginning of the video and click the stopwatch to create a keyframe. Bring your timeline indicator up to around 1sec and type -1 for rotation.
17. Bring your timeline indicator up to where the ball would impact the glass. Select glass layer and put a keyframe under depth. Bring the ball back a bit and reduce the depth. Be sure to not reduce the depth so much that the glass breaks on the wrong side!
18. Add motion blur by checking motion blur on the timeline and checking motion blur on the ball layer.