ANTI-GRAVITY GIZMO

Stay dry under an upside down container of water.

THE SETUP
You can’t say there are no strings attached to this trick. Strings help you create a force greater than gravity. Take a quart-sized disposable plastic container and make three evenly spaced holes near the rim. Cut three two-foot lengths of string. Slip a piece of strong string through each hole and tie it securely. Knot the loose ends together. This is your anti-gravity gizmo. Fill it half-full of water.

Swing the container back and forth like a pendulum, building up speed and the length of the swing. Your goal is to make a complete circle. The container will be upside down some of the time but the water will not fall out. Keep it moving and stay confidently dry.

INSIDER INFORMATION
There are two forces acting on the container. First, you exert a force to move the container away from you in a straight line. Second, the strings exert a force to prevent this from happening and pull the container toward your hand. The result of these two forces is that the container makes a circular path at the end of the string. The combination produces a centrifugal, or away-from-the-center force, on the water inside the container, pressing it against the bottom. When the container is upside-down, you have obviously created an anti-gravity force that is stronger than gravity.