



# Levitation 101

## What you need:

FLEXIBLE STRAW  
PING PONG BALL  
HAIR DRYER (OPTIONAL)

## What to do:

BEND THE STRAW AT A 90 DEGREE ANGLE.  
HOLD THE STRAW AT THE BEND SO THAT ITS SHORTER END IS POINTING UPWARDS. LOOSELY HOLD THE PING PONG BALL ON TOP OF THE STRAW AND BLOW INTO THE STRAW.  
SLOWLY RELEASE THE BALL WHILE EXHALING AND THE BALL SHOULD REMAIN HOVERING IN THE AIR.  
IF YOU GET SHORT OF BREATH, TRY USING THE COLD/WARM SETTING OF A HAIRDRYER FOR THE SAME EFFECT!



WHERE'S  
MY  
**SAFETY**  
NET?!?

## What's going on?

YOU WOULD BE CORRECT IN ASSUMING THAT THE AIR YOU ARE BLOWING UNDER THE BALL HAS ENOUGH FORCE TO KEEP IT AFLOAT. HOWEVER, YOU SHOULD NOTICE THAT THE BALL SPINS WHILE IT HOVERS. THIS IS DUE TO THE BERNOULLI EFFECT. HIGH AIR PRESSURE SURROUNDS THE BALL BEFORE YOU START TO BLOW. BUT, THE FASTER MOVING AIR YOU PROVIDE THROUGH THE STRAW MOVES AROUND THE SIDES OF THE BALL AND CREATES AREAS OF LOW AIR PRESSURE. WHEN THE BALL BEGINS TO WOBBLE IN THESE AREAS OF LOW PRESSURE, THE HIGHER AIR PRESSURE SURROUNDING IT PUSHES THE BALL BACK IN PLACE. ALL OF THIS UNEVEN FORCE ON THE BALL CAUSES IT TO SPIN!