Physics IA

The functioning of a helicopter:

Helicopters, unlike aeroplane, don't work on propellers. Instead, they have a blade which rotates due to a motor. Let us understand how a helicopter takes off and flies.

A helicopter has a mass 'm.' Our helicopter has a mass of 34.2g
A Force of gravity 'g' works on this body. [g = 9.81m/s^2]

So therefore, the gravitational force acting on this helicopter is:

$F_{grav} = mg$

$F_{grav} = 34.2 \times 9.81 = 335.502N$

Now,

There needs to be a normal force acting on the helicopter which is greater than this gravitational force,

$F_N >> F_{grav}$

So let's understand where this normal force comes from,