**Attitude indicator for quad ground controller - Requirements**

The attitude indicator is a GUI element used to show the pitch and roll angles of the quad copter.

In order to define the operation of the attitude indicator we must first define the sign conventions of the pitch (teta) and roll (Phi) angles. These are defined as follows:

Pitch angle (Teta) is defined as follows:

ө<0

ө>0

Roll angle (Phi) is defined as follows:

Left wing

Right wing

ө<0

View from Back

Tipping the right wing down == Phi > 0

Tipping the left wing down == Phi < 0

The attitude indicator response to the aircraft dynamics is as depicted in the following image:

