en/CalibrateACC

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Inhaltsverzeichnis

1 Calibrate ACC 1/7

2 Calibrate ACC in flight 3/7

2.1 HoTT 3/7

2.2 KopterTool 5/7

1 Calibrate ACC

The ACC sensor is a three-axis sensor. With this sensor the current inclination of the MikroKopter is measured. In addition the automatic height control is supported.

If the sticks (for nick and roll) are centered, the copter automatically holds the balance.

For calibration, the copter must be absolutely straight. The more accurately the ACC sensor is calibrated, the better the copter holds the balance and the position.

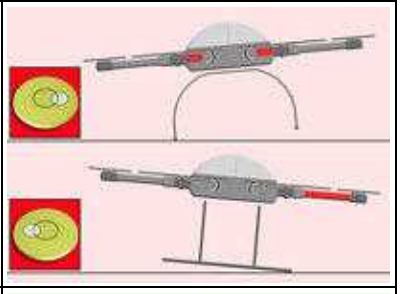
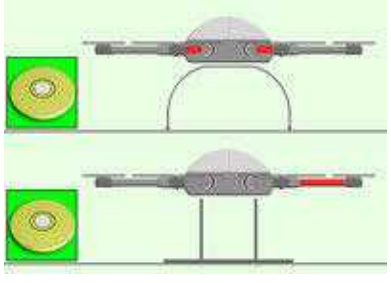
Without this one-time calibration, the copter can not be started and an error message appears.

Recalibration of the ACC sensor is not usually necessary.

Note

Together with the ACC calibration the gyro calibration is also stored in the copter.
This we need for the BoatMode.

The calibration is done in a few steps:

Step	Example view (Mode 2)
Switch on the remote control and connect the copter with the battery.	
Step 1 If the copter stands obliquely ...	
... it must be aligned. The easiest way is with a spirit level or circular level.	

Step 2 On the remote control, move the stick for "throttle" and "yaw" to the following position. Hold this position for ~5-6 seconds !! - Throttle => up - Yaw => right	 (Beispielansicht)
Step 3 The sticks can be released after you hear an acoustic confirmation from the copter. The calibration is finished	

2 Calibrate ACC in flight

If you want to adjust the ACC more precisely, you can do this in flight.

For this type of calibration look for a sufficiently large field and it should be completely calm.

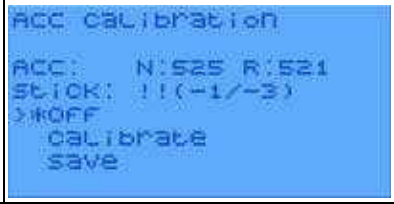
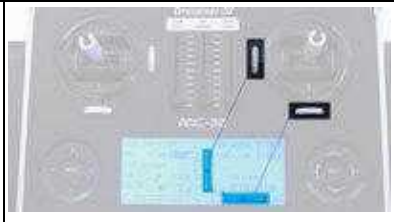
This calibration can be carried out with: a Graupner HoTT or a Jeti transmitter,
or with the KopterTool (a wireless connection between copter and computer is needed).

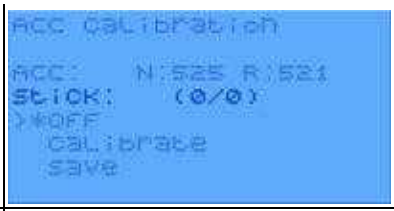
INFO

Before you can calibrate the copter during flight you have to calibrate the ACC once via the sticks (see above).

Without you can not start the copter!!!

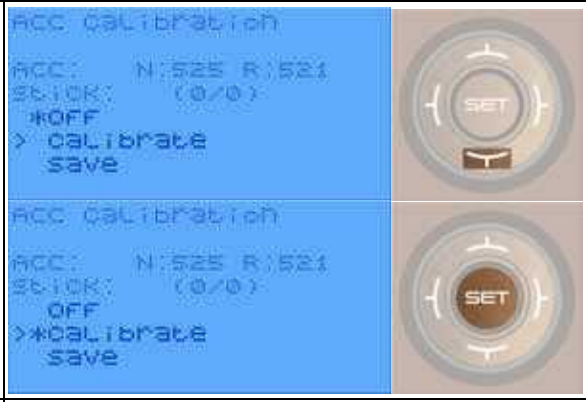
2.1 HoTT

Step	Example view (Mode 2)
Switch on the remote control, connect the copter with the battery ...	
... and calibrate the Gyros. (Throttle up + yaw left)	
Step 1 On your Graupner HoTT transmitter open the Text-Telemetrie (Link). Here open the window "ACC calibration".	
Step 2 Set the trim for Nick and Roll now to "0".	



Step 3

Activate the calibration.



Step 4

Function
- "AltitudeHold" **-> ON**
- "GPS" (PositionHold, ComingHome, CareFree)**-> OFF**

Start your copter and hover.



Step 5

With the button
- UP / DOWN (for Nick "N") and
- LEFT / RIGHT (for Roll "R")

you can now calibrate the ACC in smal steps. In the best case, the copter is hovering on the spot.
(a value around 512 for Nick / Roll is realistic)

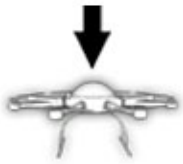


When you reach this, you finished the calibration with "SET".



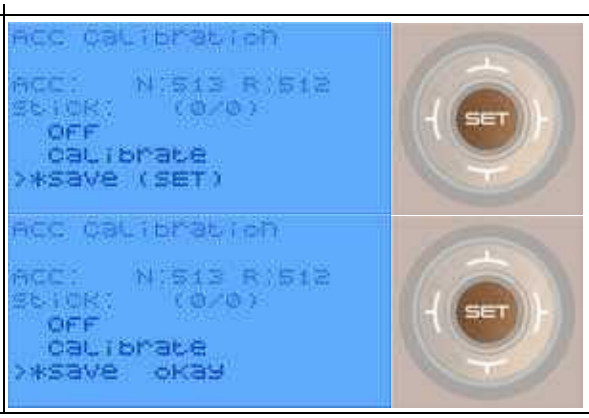
Step 6

Now land the copter,
and switch off the motors ...



... go down to "Save" ...



... and save the calibration by pressing "SET" twice. Ready	

2.2 KopterTool

Step	Example view (Mode 2)
Switch on the remote control and connect the copter with the battery.	
Start the wireless connection between copter <-> Computer and start the KopterTool.	
Calibrate the Gyros. (throttle up + yaw left)	
Step 1 Press the Button "->FlightCtrl" in your KopterTool. With the red arrows move to the window "ACC-Sensor". To open the calibration, click on the red arrow under "(cal)".	



Step 2

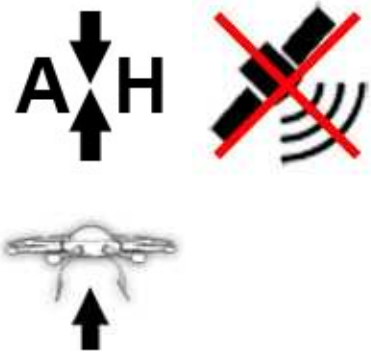
Set the trim for Nick and Roll now to "0".



Step 3

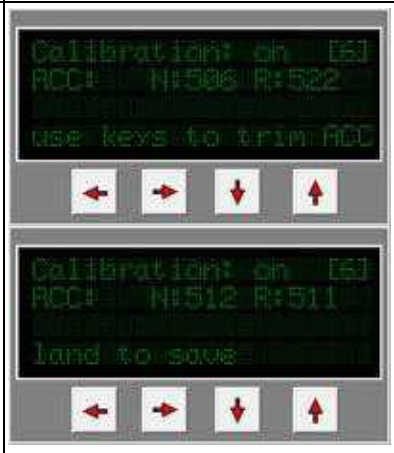
Function
- "AltitudeHold" **-> ON**
- "GPS" (PositionHold, ComingHome, CareFree)**-> OFF**

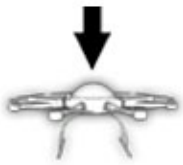
Start your copter and hover.



Step 5

With the red arrows you can now calibrate the ACC for:
- UP / DOWN (for Nick "N") and
- LEFT / RIGHT (for Roll "R").
Do this in small steps. In the best case, the copter is hovering then on the spot.
(a value around 512 for Nick / Roll is realistic)



When you reach this, land the copter, and switch off the motors.	
Step 5 After this, the display automatically changes to "Save". Save the calibration with the red arrow under "(yes)".	
The calibration is finished.	