Basic setup to get you going - stock tx

This info is for flying with the stock transmitter.

How to switch between the level and the acro flight modes:

There are 2 ways you can do this, you can use “gestures” or you can use the trim switches on the stock tx. Gestures is the default setup in the firmware, so no changes to the firmware are needed. To use a trim switch some changes need to be made in config.h, scroll down this page for instructions on how to set up a trim switch to change the flight mode.

Gestures are series of stick movements, left/left/down and right/right/down, that switch a virtual channel AUX 1 in the firmware. This AUX 1 channel can be used to switch from level to acro mode and back again.

There are some conditions to using gestures:

1. Obviously you can only do it when the quad is not flying.
2. The stick movements need to be precise, for example, when you move the stick left, try not to add much up or down component.
3. The left/left/down or right/right/down sequence needs to be done within 2 seconds, and the LED's will flash to confirm the quad has received the gesture.
4. Make sure you wait a couple of seconds if you fail to get the gesture right, as the code needs that time to restart.

Config.h settings for gestures

The default settings in the firmware are with gestures enabled to switch between acro and level modes, so no changes are needed. This is the line where AUX 1 is enabled as the level/acro switch, and the default firmware setting looks like this:

```
// level / acro mode switch
#define LEVELMODE CH_AUX1
```

The code below determines whether AUX 1 is on or off at powerup. For example, if your quad powers up in acro mode, and you want it to power up in level mode, then comment or uncomment this line:

```
// aux1 channel starts on if this is defined, otherwise off.
#define AUX1_START_ON
```

Note for H8 mini blue board firmware - this firmware has a gestures1 or gestures2 option. For our purposes here, we want the gestures2 option selected, which is the default setting and looks like this: (gestures1 will do the old accel cal only - hold down for a while - to save memory)

```
// Gestures enable ( gestures 1 = acc only)
//#define GESTURES1_ENABLE
#define GESTURES2_ENABLE
```

Using a trim switch to switch between the level and the acro flight modes

Before reading any further, this feature is not available in CG023 code at this point in time (Nov 2016). It is available only in the H8 mini green, H8 mini blue and H101 firmwares.

Setting up a trim switch to switch between level and acro will enable switching on the ground or during flight, but the main advantage is that it is more convenient than using gestures. Here's an example of how to set the roll trim switch to change the flight mode:

In config.h, change this line from this:

```
// level / acro mode switch
#define LEVELMODE CH_AUX1
```

to this:

```
// level / acro mode switch
#define LEVELMODE CH_RLL_TRIM
```

Also make sure the line “#define USE_STOCK_TX” is uncommented or it won't work, like this:

```
// comment out if not using ( disables trim as channels, will still work
with stock tx except that feature )
// devo/tx module incompatible
#define USE_STOCK_TX
```

Then rebuild the code (“Project/Build Target” in Keil) and reflash the quad.

You can use any trim switch you like, just select it from this list in config.h:

```
// CH_PIT_TRIM - 6 - Pitch trims
// CH_RLL_TRIM - 7 - Roll trims
// CH_THR_TRIM - 8 - Throttle trims
// CH_YAW_TRIM - 9 - Yaw trims
```

Also, you can assign the rates to another trim switch, for example, the pitch trim switch could be set up like this:

```
// rates / expert mode
#define RATES CH_PIT_TRIM
```

Now the quad will start in level mode and high rates whenever you power it up. For low rates press the pitch trim button down, and push it back up for high rates again. For acro mode push the left roll trim button, and pushing it right puts it back to level mode.

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