set p\_pitch = 47

set i\_pitch = 84

set d\_pitch = 46

set d\_min\_pitch = 34

set f\_pitch = 125

set p\_roll = 45

set i\_roll = 80

set d\_roll = 40

set d\_min\_roll = 30

set f\_roll = 120

set p\_yaw = 45

set i\_yaw = 80

set d\_yaw = 0

set d\_min\_yaw = 0

set f\_yaw = 120

# -- PID Sliders (default) --

set simplified\_pids\_mode = RPY

set simplified\_master\_multiplier = 100

set simplified\_i\_gain = 100

set simplified\_d\_gain = 100

set simplified\_pi\_gain = 100

set simplified\_dmax\_gain = 100

set simplified\_feedforward\_gain = 100

set simplified\_pitch\_d\_gain = 100

set simplified\_pitch\_pi\_gain = 100

# -- iTerm relax (default) --

set iterm\_relax = RP

set iterm\_relax\_type = SETPOINT

set iterm\_relax\_cutoff = 15

# -- iTerm windup (default) --

set iterm\_windup = 85

# -- iTerm rotation (off, default) --

set iterm\_rotation = OFF

# -- Dmax (default) --

set d\_max\_gain = 37

set d\_max\_advance = 20

# -- TPA (default) --

set tpa\_rate = 65

set tpa\_breakpoint = 1350

set tpa\_mode = D

# -- Feedforward (default) --

set feedforward\_transition = 0

set feedforward\_max\_rate\_limit = 90

# -- Feedforward averaging (do not change)--

# needs to be set according to RC link type and speed, not changed in the tune

# -- PIDsum limits (default) --

set pidsum\_limit = 500

set pidsum\_limit\_yaw = 400

set iterm\_limit = 400

# -- Antigravity (default) --

set anti\_gravity\_gain = 80

set anti\_gravity\_cutoff\_hz = 5

set anti\_gravity\_p\_gain = 100

# -- Absolute control (off, default) --

# this tends to cause iTerm oscillation and is best left off

set abs\_control\_gain = 0

set abs\_control\_limit = 90

set abs\_control\_error\_limit = 20

set abs\_control\_cutoff = 11

# -- Accecleration limits (off, default) --

# these may be configured to prevent I windup on yaw on low authority quads

set acc\_limit\_yaw = 0

set acc\_limit = 0

# -- Angle and Horizon mode tuning (default)

set angle\_level\_strength = 50

set horizon\_level\_strength = 50

set horizon\_transition = 75

set level\_limit = 55

set horizon\_tilt\_effect = 75

set horizon\_tilt\_expert\_mode = OFF

# -- PIDs active below min throttle (default) --

# always best on

set pid\_at\_min\_throttle = ON

# -- Set mixer type to default (legacy) --

# Will overwrite a user's prefered mixer method

set mixer\_type = LEGACY

# -- Set yaw spin recovery to default, which is auto --

# this is the optimal setting for all except radical LOS builds. .

set yaw\_spin\_recovery = AUTO

# -- Set integrated yaw to off so yaw tuning is simpler (default) --

# integrated yaw integrates yaw pidsum when calculating yaw pids

# tuning is far different with integrated yaw on and should only

# be set to on if you have tuned for it

set use\_integrated\_yaw = OFF

# -- Gyro cal on first arm (off, default) --

# only calibrates on power up

# faster take-off after first arm when off

set gyro\_cal\_on\_first\_arm = OFF

# -- Transient throttle limit (off, default) --

# do not enable if using dynamic idle, replaced with dynamic idle

# best kept off

set transient\_throttle\_limit = 0

# -- Thrust linear (off, default) --

# increases motor output differentials at low throttle, useful if low thrust at low rpm, commonly used for Whoops

# reset here to ensure a prior whoop flash won't carry thrust linear into other tunes

set thrust\_linear = 0

# -- Throttle boost (default, 5)

# adds more throttle when throttle is moved rapidly, to compensate for motor lag

# aggressive builds may need no throttle boost

# Different throttle boost values may be provided to the User with Options

set throttle\_boost = 5

set throttle\_boost\_cutoff = 15

# -- VBat warning threshold (3.5V, default)--

# Often set lower in whoop builds

set vbat\_warning\_cell\_voltage = 350

# -- DShot Idle (default)--

# Commonly set lower when dynamic idle is active.

set dshot\_idle\_value = 550

# -- Dyn Idle (off, default) --

# Commonly enabled to improve turns and minimise desyncs

# Since every preset resets this to off, users with desync prone builds will have to re-apply their personal values after this reset

set dyn\_idle\_min\_rpm = 0

set dyn\_idle\_p\_gain = 50

set dyn\_idle\_i\_gain = 50

set dyn\_idle\_d\_gain = 50

set dyn\_idle\_max\_increase = 150

set motor\_pwm\_rate = 480

# HONOUR THE FOLLOWING "PERSONAL PREFERENCE" SETTINGS

# THEY WILL BE RETAINED, UNCHANGED, AFTER APPLYING THIS DEFAULT FILE

# THE AUTHOR MAY PROVIDE AN UNCHECKED OPTION TO SET THESE OR OTHER PARAMETERS

# -- Stick behaviour, endpoints --

# -- Deadbands --

# -- Airmode (should be on) --

# -- Level Race Mode --

# -- Runaway takeoff prevention --

# -- Crash Recovery settings --

# -- Turtle mode settings --

# -- Acro trainer settings --

# -- Launch control settings --

# -- Motor output limit --

# -- Motor protocol --

# -- DShot telemetry status (controlled by a filter set) --

# -- Throttle limit --

# -- Throttle curve --

# -- VBat sag compensation --

# -- Small Angle --

# ------ OPTIONS GO BELOW THIS LINE ------

# This is where the author includes options that require input from the User

# Checked Options are allowed only for values from the list above, e.g. different options for a throttle curve or throttle boost, or a 'spicier' tune.

# Other values may ONLY be included as un-checked options. Examples follow...

# -- Rates --

# One ore more un-checked 'OPTION' elements that 'Include' external Rates preset files.

# -- Filters --

# One ore more un-checked or checked 'FILTERS elements that 'Include' external Filter preset files.

# It may be good to initialise to a non-RPM filter set, then provide your preferred RPM aware filter set as a checked uption.

# -- Throttle limit (default) --

# For least full throttle noise, use SCALE and values around 95-96-97

# Different throttle limit values may be provided to the User with Options

# set throttle\_limit\_type = OFF

# set throttle\_limit\_percent = 100

# -- Throttle curve (default, off) --

# Whoops etc do best with a concave-down throttle boost at low stick angle

# Different throttle limit values may be provided to the User with Options

# set thr\_mid = 50

# set thr\_expo = 0

# -- VBat sag compensation (off, default) --

# Most pilots find that full sag compensation is better than off

# set vbat\_sag\_compensation = 0

# set vbat\_sag\_lpf\_period = 2

# -- Constrain arming within a limited range (default 25 degrees) --

# useful to be set to 180 to arm if stuck at an angle, increases risk of accidentally arming while being carried

# set small\_angle = 25

# -- Set min stick values to default --

# in case changed to silly number and can't get stick commands to work

# both are better set to 1020 for digital radios with sticks adjusted to a 1000-2000 range

# set min\_throttle = 1070

# set min\_check = 1050

set gyro\_hardware\_lpf = NORMAL

# -- Gyro lowpass filters --

set gyro\_lpf1\_type = PT1

set gyro\_lpf1\_dyn\_min\_hz = 250

set gyro\_lpf1\_dyn\_max\_hz = 500

set gyro\_lpf1\_dyn\_expo = 5

set gyro\_lpf1\_static\_hz = 250

set gyro\_lpf2\_type = PT1

set gyro\_lpf2\_static\_hz = 500

# -- Gyro sliders --

set simplified\_gyro\_filter = ON

set simplified\_gyro\_filter\_multiplier = 100

# -- Gyro Static Notches --

set gyro\_notch1\_hz = 0

set gyro\_notch1\_cutoff = 0

set gyro\_notch2\_hz = 0

set gyro\_notch2\_cutoff = 0

# -- Gyro Dynamic Notches --

set dyn\_notch\_count = 3

set dyn\_notch\_q = 300

set dyn\_notch\_min\_hz = 150

set dyn\_notch\_max\_hz = 600

set gyro\_filter\_debug\_axis = ROLL

# -- RPM filtering --

set dshot\_bidir = OFF

set rpm\_filter\_harmonics = 3

set rpm\_filter\_q = 500

set rpm\_filter\_min\_hz = 100

set rpm\_filter\_fade\_range\_hz = 50

set rpm\_filter\_lpf\_hz = 150

# -- Dterm filtering --

set dterm\_lpf1\_type = PT1

set dterm\_lpf1\_dyn\_min\_hz = 75

set dterm\_lpf1\_dyn\_max\_hz = 150

set dterm\_lpf1\_dyn\_expo = 5

set dterm\_lpf1\_static\_hz = 75

set dterm\_lpf2\_type = PT1

set dterm\_lpf2\_static\_hz = 150

set dterm\_notch\_hz = 0

set dterm\_notch\_cutoff = 0

# -- Dterm sliders --

set simplified\_dterm\_filter = ON

set simplified\_dterm\_filter\_multiplier = 100

# -- Yaw lowpass --

set yaw\_lowpass\_hz = 100

# -- Accelerometer lowpass --

set acc\_lpf\_hz = 10

# -- PID Settings --

set simplified\_pids\_mode = RP

set simplified\_d\_gain = 90

set simplified\_pi\_gain = 100

set simplified\_feedforward\_gain = 110

set simplified\_dmax\_gain = 100

set simplified\_i\_gain = 100

set simplified\_pitch\_d\_gain = 130

set simplified\_pitch\_pi\_gain = 130

set simplified\_master\_multiplier = 100

set p\_yaw = 90

set i\_yaw = 90

set tpa\_breakpoint = 1750

set dyn\_idle\_min\_rpm = 25

set vbat\_sag\_compensation = 100

set anti\_gravity\_gain = 85

set pidsum\_limit = 1000

set pidsum\_limit\_yaw = 1000

# -- ADDER: 1,000ft to 3,000ft --

set simplified\_master\_multiplier = 100

# -- ADDER: For low gyro vibration builds --

set simplified\_gyro\_filter = ON

set simplified\_gyro\_filter\_multiplier = 100

set simplified\_dterm\_filter = ON

set simplified\_dterm\_filter\_multiplier = 100

set gyro\_lpf1\_static\_hz = 0

set gyro\_lpf1\_dyn\_min\_hz = 0

set gyro\_lpf2\_static\_hz = 0

set dyn\_notch\_count = 0

set dyn\_notch\_q = 500

set dyn\_notch\_min\_hz = 125

set dyn\_notch\_max\_hz = 850

set motor\_pwm\_protocol = DSHOT600

set dshot\_bidir = ON

set motor\_poles = 12

set rpm\_filter\_harmonics = 1

set yaw\_lowpass\_hz = 0

simplified\_tuning apply