Quadstar System Engineering Architecture

Ground Service Station (GSS)

#46 Testbench

#45 Loading Station

Ground Control Station (GCS)

#44 Joystick → #16 User Interface

s_j   s_j

#43 Ground Communication Unit (GCU)

s_j   s_j

#30 Quad Communication Unit (QCU)

#49 Quad Sensor Unit (QSU)

Loading

#50 Accumulator → #48 Power Wiring Harness → #40 Main Compute Unit (MCU) — s_c

s_c

#38 Electronic Speed Controller (ESC) ×4   #42 Step Motor ×2

#41 BLDC-Motor ×4   #47 Wings ×2

Quadcopter

Signale:
s_j: (thrust, setpoint_pitch, setpoint_roll)
s_c: PWM-Signal, $f = 490$Hz, $\Delta t = 1$–2ms

Farbcodierung:
Actuator
Sensor
Control
Communication
Util

Hinweis:
entspricht der GitHub Project Issue ID