System BLDC1 ESC1 ESC2 BLDC2 ESC3 BLDC3 Reference Arduino ESC4 BLDC4 IMU Distance Sensor Simulation BLDC1 ESC1 PD/LQR → Motor Control ESC2 BLDC2 Fset ESC3 BLDC3 Reference PWM > $\dot{x} = f(x,u)$ ESC4 BLDC4 IMU Kalman p, q, r, xdd, ydd, zdd zd Filter Distance Sensor Z