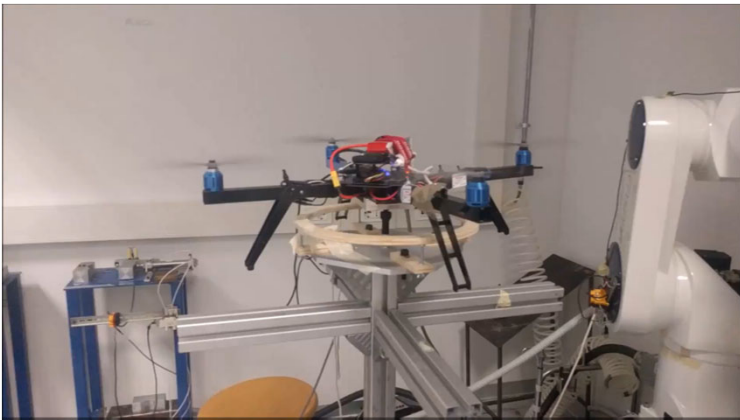
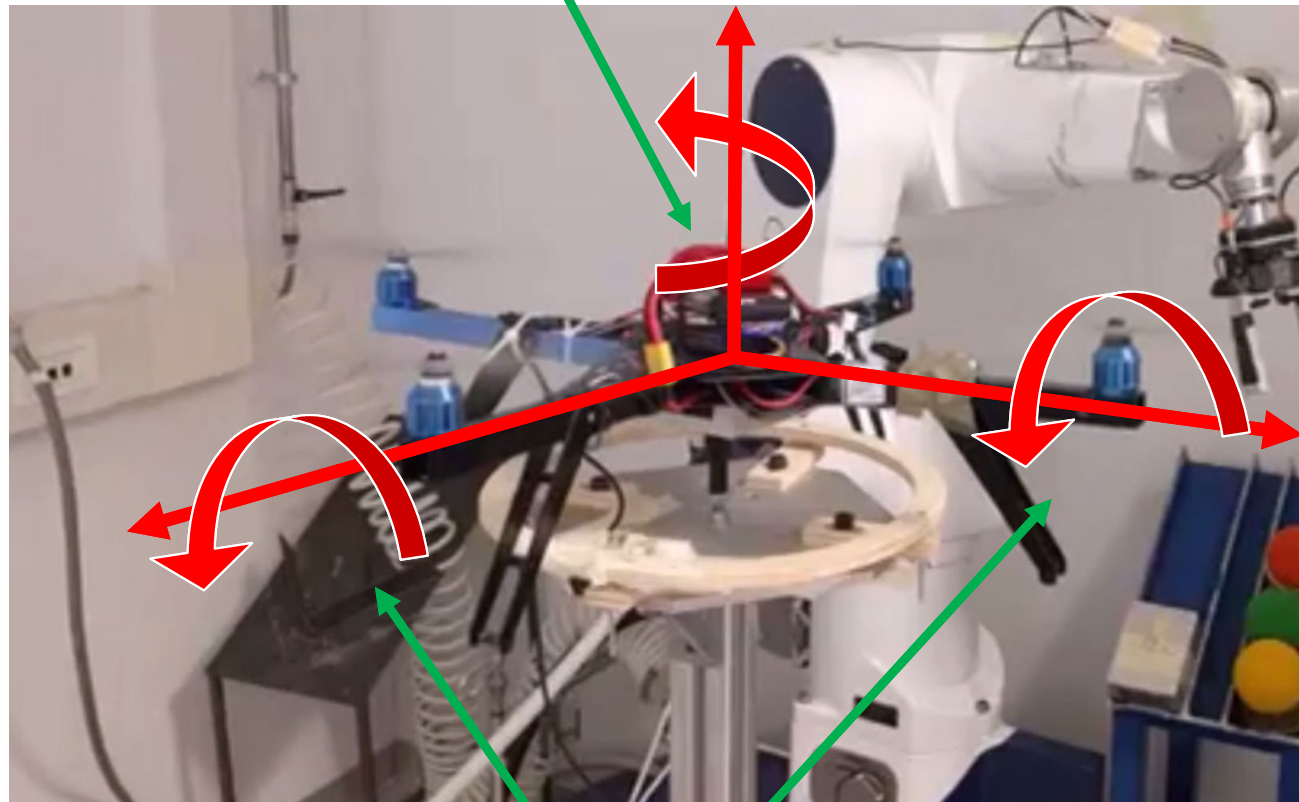


# Quadcopter

The **Quadcopter** is mounted on a **hub**



Rotational dof to limit



Rotational dofs to control

# Quadcopter

## Cube Orange MCU



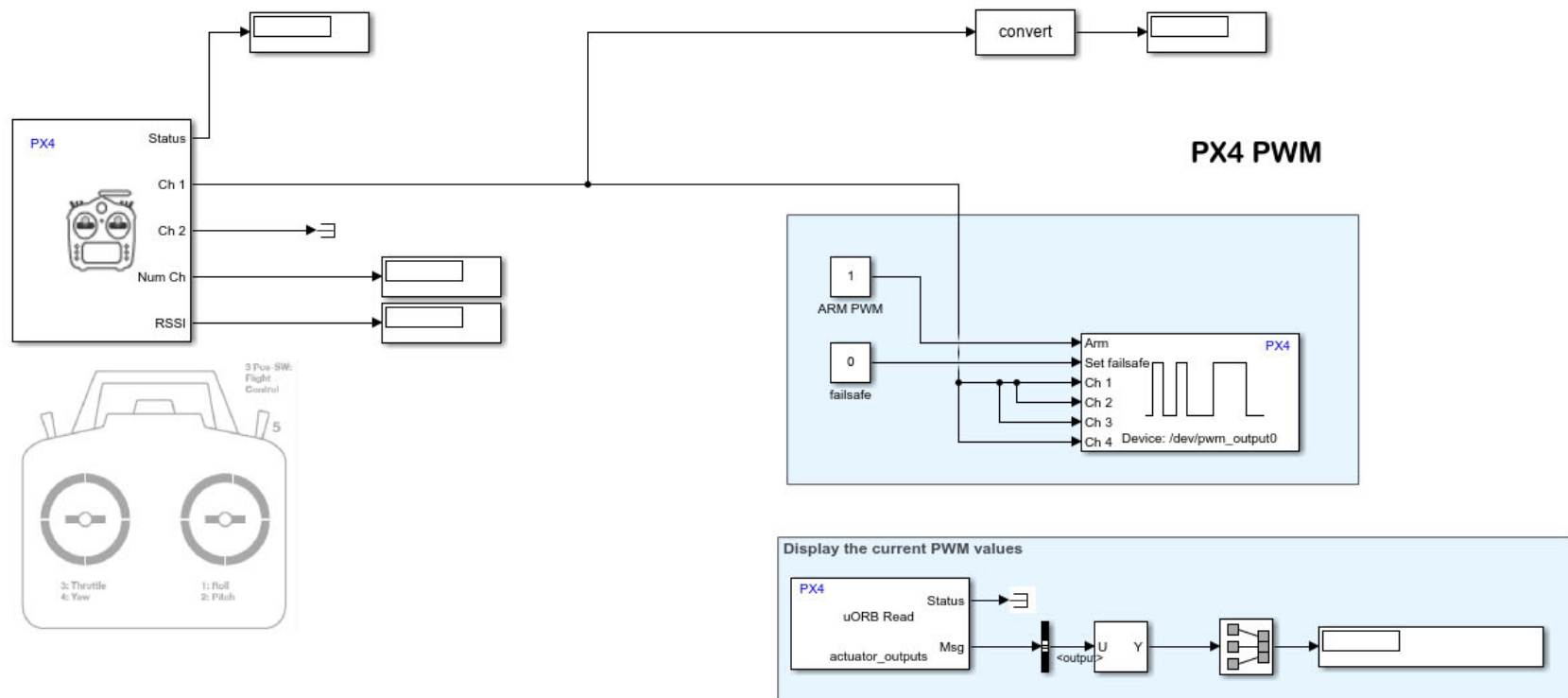
PC



carbon fiber frame

# Quadcopter

Simulink block-sets pre-installed and documentation provided for:  
IMU (Inertial Measurement Unit); on board tools (RC, GPS...) and how to control the propellers.



## Roadmap of the activity



- ✓ modeling of the system:
  - ✓ mechanical and propellers parameters estimation
  - ✓ sensor noise analysis
- ✓ Stabilization of the system (1 dof):
  - ✓ Linear control logics (PID, pole placement, ...)
  - ✓ Non-linear control logics (optimal control, ...)
- ✓ Stabilization of the system (2dof):
  - ✓ Linear control logics (PID, pole placement, ...)
  - ✓ Non-linear control logics (optimal control, ...)
- ✓ ...