

KU-Loiter MAV

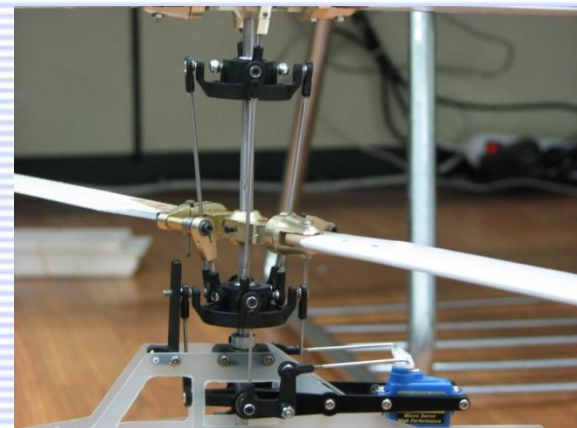
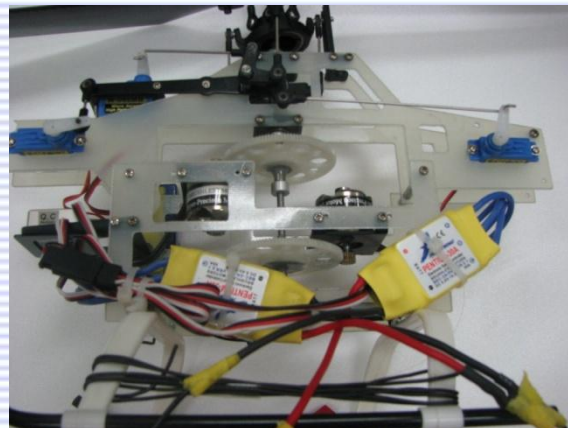


Bae Soon Kwan, Cheon Min Gyu
Kwang Joon Yoon
Smart Robot Center
Dept. of Aerospace Information Eng.
Konkuk University
Seoul, Korea

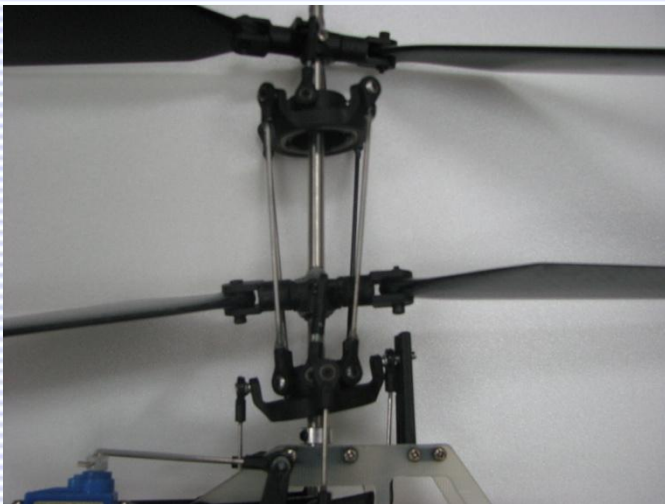
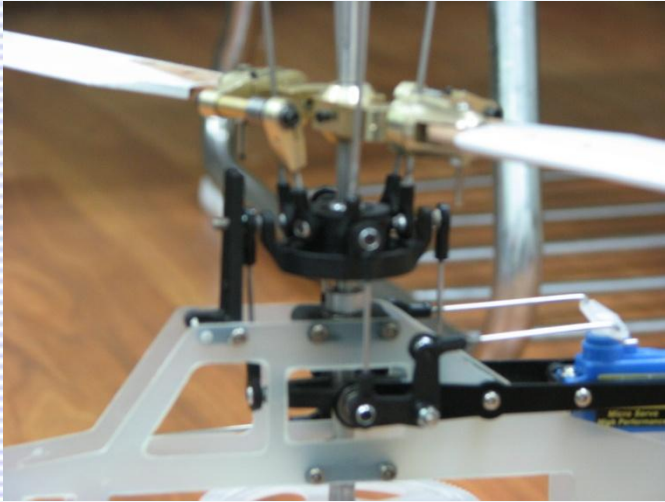
Model 1.



- **For Outdoor mission purpose**
- **Co-axial rotary system**
- **Weight : 495g**
- **Rotor diameter : 49cm**
- **2 swash plate – pitch control**
- **2 motors, 3 servomotors,**
7.4V-1800mA battery,
- **1 CMOS camera**



Model 1.



1. **Changed head of rotor from steel to plastic due to its over weight**
 2. **Yaw control by controlling RPM of 2 motors**
 3. **Current Situation**
 - **Difficulties occurred by mixing 2 motors in 1 gyro system**
 - **Overweight due to adapting Auto-pilot system**
- **Decided to participate in indoor mission instead of outdoor with smaller rotary wing MAV**

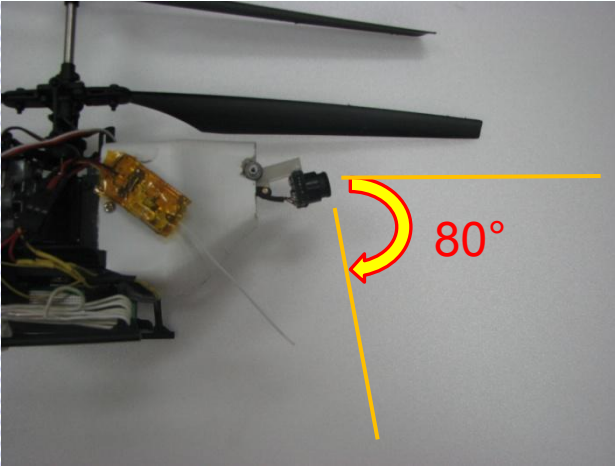
Model 2.



- **Modified COTS**
- **Co-axial rotary system**
- **Weight : 241.5g**
- **Rotor diameter : 36cm**
- **1 swash plate**
- **2 motors, 2 servomotors,**
- **7.4V-800mA battery,**
- **1 CMOS camera**

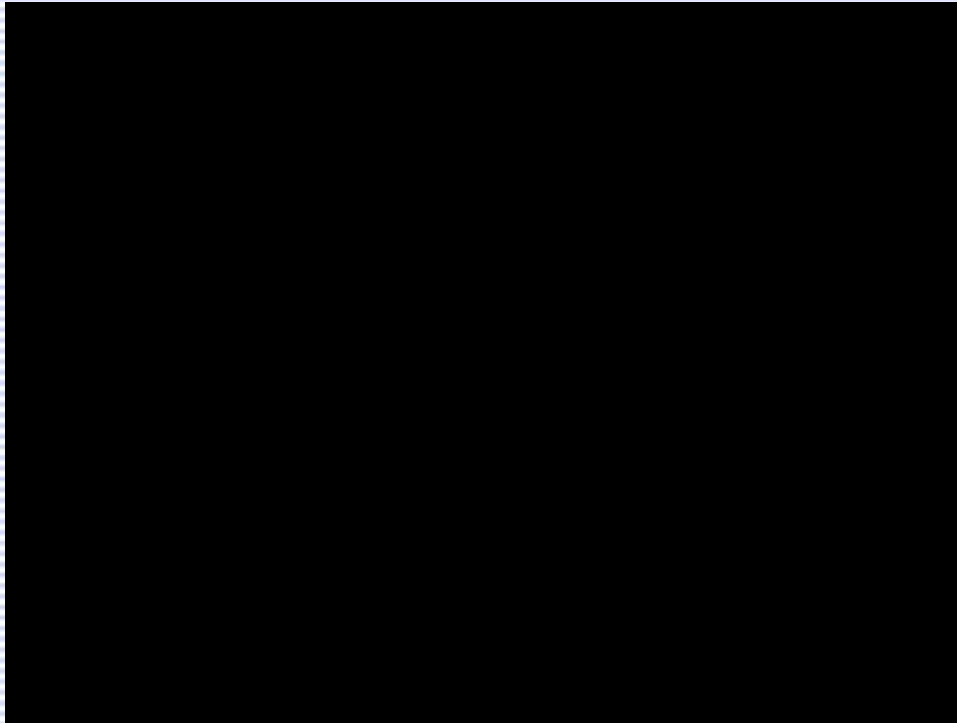
Model 2.

- Vision sensor included



Model 2.

- Flight movie



- Vision image from camera



Thank you ...