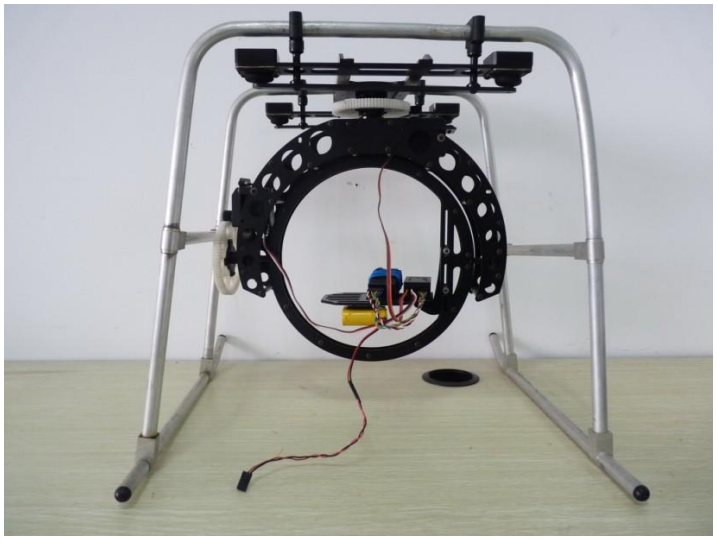
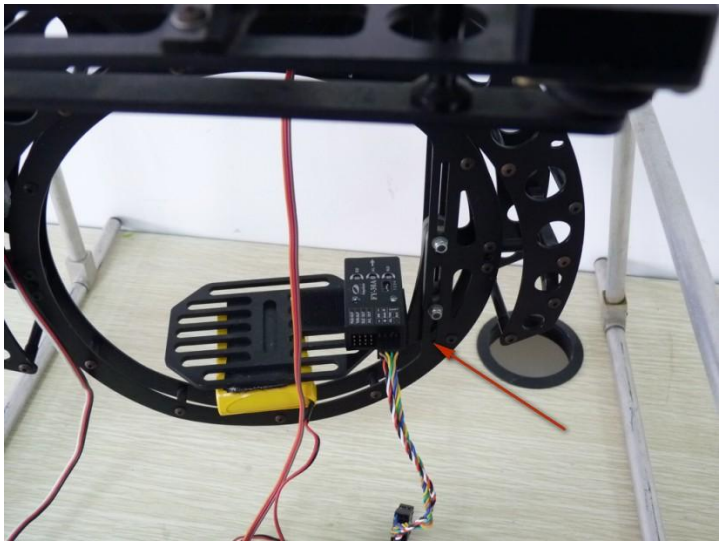
FY-30A for pan/tilt control user manual

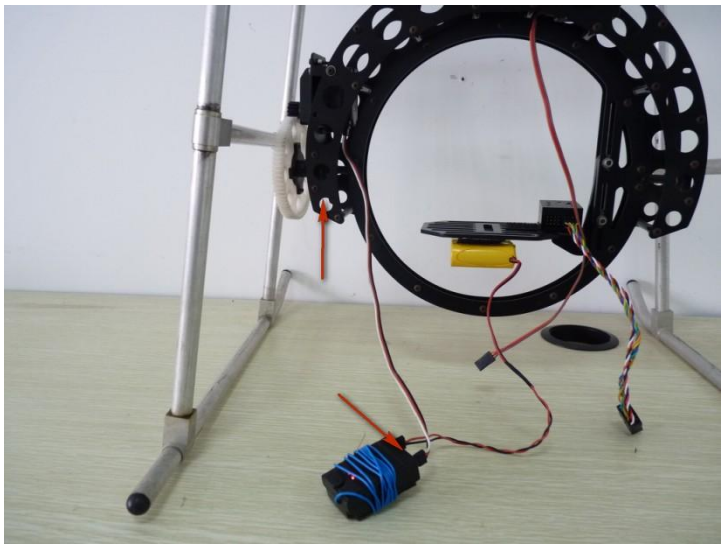
In this example, the pan/tilt is two axis 360 degrees servo control, which can rotate at any angle in pitch and heading. The servo outputs reduction gear.



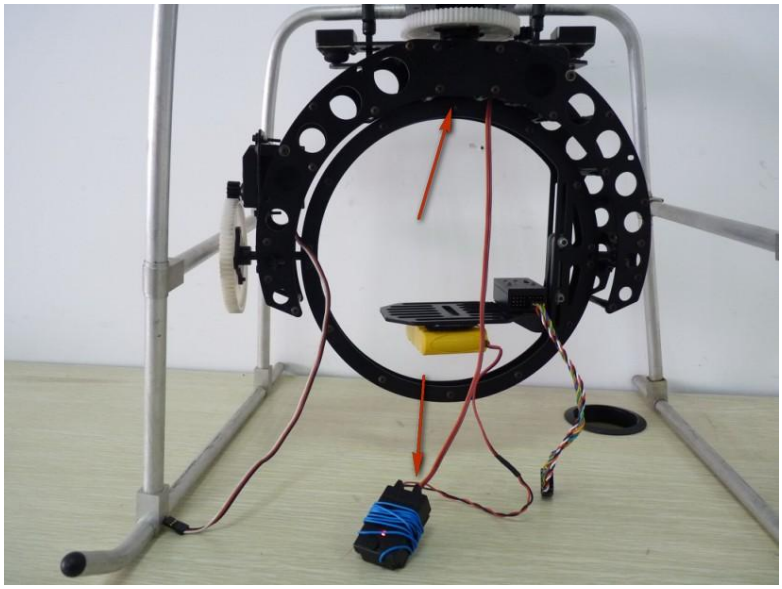
FY-30A control module is installed inside the pan/tilt. The camera gimbal is controlled by the operation of FY-30A own attitude and heading etc. (shown as below).



Before connecting, please ensure the pan/tilt servo is normal. You can do as follow to inspect: first, connect the pan/tilt servo to responding receiver channel (for example, connect the pitch servo to the pitch channel), then turn on the Remote Control, set all the channel fine tuning of RC corresponding rocker to zero, and all of the curve set to default. After power on the receiver, the pan/tilt servo won't roll, and no pitching and rotation etc. (shown as below)

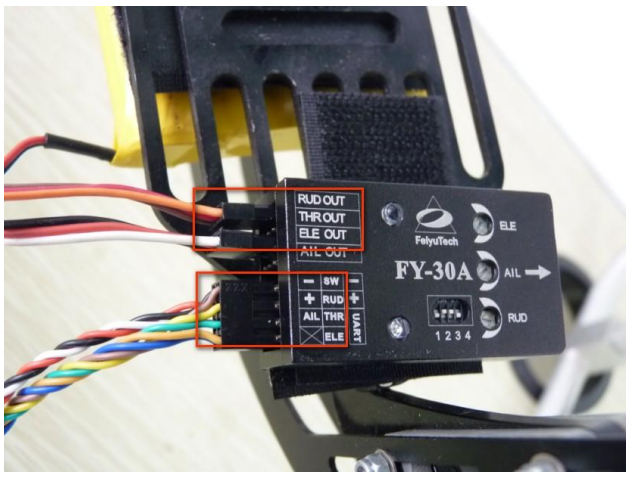


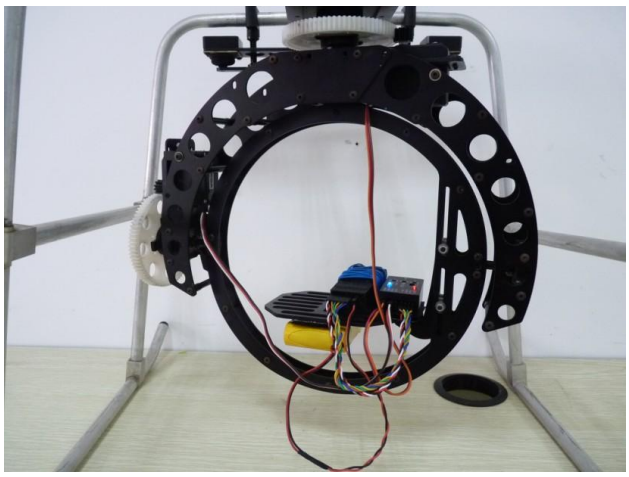
Connect one servo at a time, and testing them one by one. Be sure not to connect multiple at one time.(shown as below)



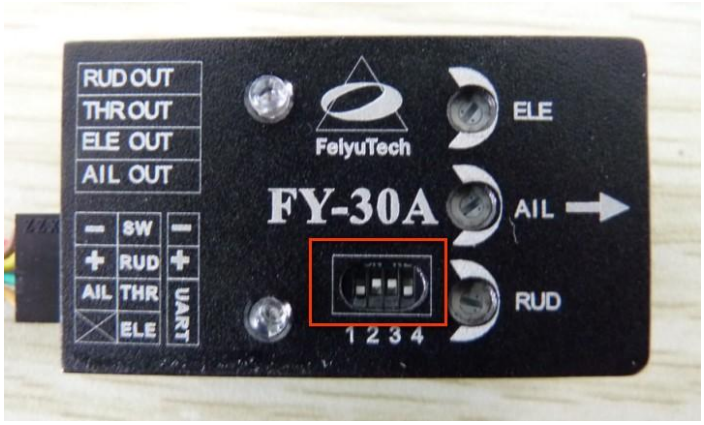
If the servo continues rotation, the control servo stalling signal will be inconformity with RC default output neutral position. You can adjust fine tuning of the RC corresponding channel to compensation, until the servo stop rolling.

If all the servos control is normal, start to install FY-30A control module, and connect the servos and receiver to the control module. In this example, the servos connect to ELE and RUD channel, and the receiver is connected to the same position.（shown as below）



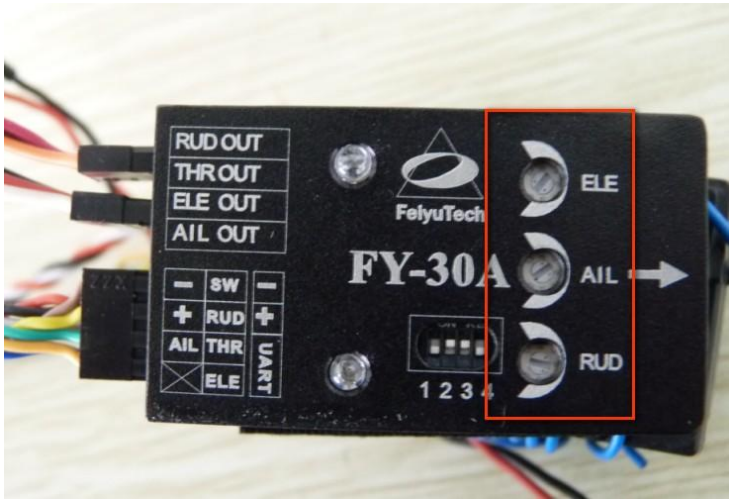


You should set the dial switch when control pan/tilt. (The switch position is shown as below.)



A battery is required to power on the receiver and FY-31AP.

After power on, when the RC rocker is in the neutral position, the pan/tilt should keep the same attitude, that is to say, the servo shouldn't be roll. If the servo continues rolling, you should power off and adjust the sensitivity knob in negative direction. (for example, if the rudder continues rolling, adjust the "RUD" knob, if rolling in the pitch, adjust "ELE" knob). The sensitivity knob position is shown below.



Under the condition of servo rotation free, you should control the pan/tilt with rocker. If the servo shaking when the rocker in the neutral position, it indicates that the sensitivity is too big. As a result, you should adjust the sensitivity knob to neutral position, until to a suitable value.

After the pan/tilt servo and the control sensitivity are all normal, you can record the neutral position. Do as following, power for the FY-30A, when the RC rocker is in the neutral position, switch stability mode to 3D mode, then you can record the neutral position successfully.

The purpose of recording the neutral position is to lock the target heading, FY-30A can judge if the rocker is in the middle position according the neutral value. That is to say, when the rudder rocker is in the neutral position, the current direction will be recorded to lock the target heading. While the pitch and roll rocker is in the neutral position, it will lock the level position.

When let go of the operation of RC rudder and roll rocker, it will switch to neutral position automatically. At this time, FY-30A will lock the current heading and level position, it will compensate with the movement of pan/tilt fixed part, as a result, the pan/tilt will keep stable.