

Single Axis Camera Stabilizer

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Background

Some pilots want to take videos of the beautiful cloud formations they fly in and around

Proposed General Specifications for the Device

- Single hand-held device
- Must hold vertical position (Y-axis) to within 1/8" with vertical transients jumps as much as least 6"
- Response time must be quick enough so as to eliminate all vertical movement as seen by the camera
- Must have a standard camera mount
- Supports the weight of a Nikon 1 camera as well as smaller cameras
- Runs on a single rechargeable battery
- Must weigh less than 9 oz
- Operates for at least 30 minutes on a single charge with light to moderate turbulence
- Power on/off switch
- Green Power-On LED flashes once every three seconds for about 100 millisec
- LED flashes red when the battery is low
- Circuit must be delivered on double-sided PC board with surface mount components and fits in the enclosure below
- Project requires complete Production Documentation
 - Schematic
 - Mechanical and Fabrication Drawings
 - Bill of Material with vendor part numbers and Digi-Key or Mouser part number
 - PC board artwork with Gerber Files
 - Production Test Plan and Procedure
 - User manual
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Weight of camera?