Autonomous Aerial Imaging System (AAIS)

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MOTIVATIONS
We’re sick and tired of our images and videos looking like these!

- Low Cost
- Autonomous
- Image/Video Capture
- Easy to use

GOALS

SYSTEM OVERVIEW

Sonar Sensors
RX module
IOIO board
Controller board
ESCs
Motors
Android Phone
Gimbal

SYSTEM COMPONENTS

- 1x Quadrotor Frame
- 4x Brushless motor
- 4x Propellor (2 clockwise rotating and 2 counter clockwise rotating blades)
- 4x ESC (Electronic Speed Control)
- 1x Multi-rotor controller board
- 1x Android Phone
- 1x IOIO board
- 2x Sonar Sensor
- 1x 2.4Ghz RX module

HOW TO USES IT

1) The user deploys the device by throwing it up into the air.
2) The user connects to the device using their smartphone.
3) The user changes the orientation and where the device wants to follow.
4) The user start the video capture.
5) The device records the users and the surroundings
6) The user click land button on the connected smartphone
7) The user folds and store the device

FUTURE PRODUCTION PLAN

- Miniaturization
- Stand-alone imaging system
- Implementing foldable arms
- Replacing full Android phone with SOC Android
- Lighter materials
- Smaller motors
- Explore utilization of a center rotor configuration
- Emergency landing add-ons for different terrains
- Explore protective outer shells, ruggedize

MARKET SURVEY

MARKET TRENDS

Social Media Sharing More Videos

According to the Wall Street Journal sales of pocket camcorders such as the Go-Pro personal camera device were estimated at 2 billion dollars worldwide in 2009 while growing over 21% in 2010.

COMPETITORS

- Contour
- GoPro
- Oregon Scientific
- Chinese Knockoffs

GO TO MARKET STRATEGY

1) Early Version will cost more and later version will be cheaper
2) Geared towards to many market such as military, movie, as well as sport action cam consumer
3) Split version to divide market such as faster or better version for people willing to pay more
4) Work to reduce size, durability, and cost
5) Build brand using surprior and robust tracking algorithms to differentiate and overtake market