



FLIR – Modular Thermal/Visible Capture System

This project is in cooperation and partnership with FLIR Systems located in Goleta. FLIR Project Lead – Louis Tremblay

FLIR Systems, Inc. is the global leader in Infrared cameras, night vision, and thermal imaging systems. Our products play pivotal roles in a wide range of industrial, commercial, and government activities in more than 60 countries. Pioneers in the commercial infrared camera industry, the Company has been supplying thermography and night vision equipment to science, industry, law enforcement and the military for over 30 years. From predictive maintenance, condition monitoring, non-destructive testing, R&D, medical science, temperature measurement and thermal testing to law enforcement, surveillance, security and manufacturing process control, FLIR offers the widest selection of infrared cameras for beginners to pros.

Project Description

Statement of the Problem:

Large amounts of video data is required for neural networks and other vision computer applications. But no easy and convenient way currently exists for FLIR. A dual capture camera has already been created, the FLIR Duo Pro R, but its application has been focused on drones, not multi-use capture.



Solution Concept:

Create a modular system built around the Dual Capture pro that would allow a user to view the video and control the camera. The system needs to address the capture cases of hand-held, car and boat. The hand-held case needs to be stabilized. An use off-the-shelf system will not be allowed.

Integration with a battery system, lightening system, and monitor is required. Stretch features could include a touch screen monitor with command/control to the camera.

Dual Capture Pro: <https://www.flir.com/products/duo-pro-r/>

Ideal Student Qualifications:

- Interest in user experience, video, mechanical, etc.
- Skills required in mechanical and electrical systems
- Integration of system modules

Student Requirements: Team participants will be required to:

- Sign non-disclosure forms with FLIR to limit outside disclosure of certain proprietary information relating to thermal cameras provided
- Sign agreements that provide FLIR with access to any intellectual property developed during the project

Assets Provided by the Company:

- 2 Dual Capture Pro systems
- Access to systems engineering/mechanical/computer science expertise as required

Company Website: www.FLIR.com