

Multi-UAV Simulation Presentation

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Box-2D Simulation

- ▶ The scenario described in the paper, with a blimp and two copters is implemented
- ▶ Fire is 'detected' in the simulation by sending a ball and monitoring its motion
- ▶ Coordinated motion is maintained between the copters monitoring the fire
- ▶ Model involving a false alarm is also implemented in the simulation

- An overall coordinated movement is tried to be implemented

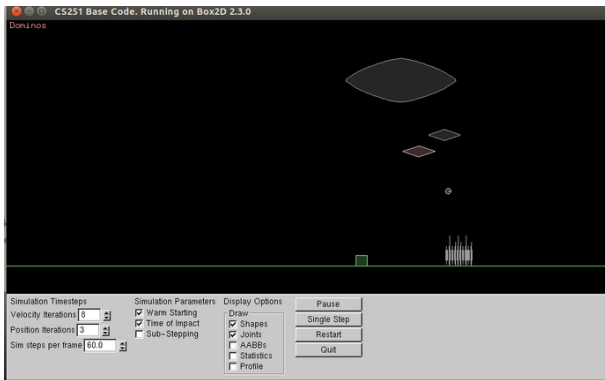


Figure : Simulation

Cpp Program

- ▶ The overall process of monitoring is shown here
- ▶ The blimp performs detection over a area specified by the user
- ▶ Two fires are determined randomly in the area specified
- ▶ The true alarm is chosen by the user and the rest of the simulation works according to it

Fire Detection

- An executable for fire detection is provided which can detect presence of fire in photos and videos

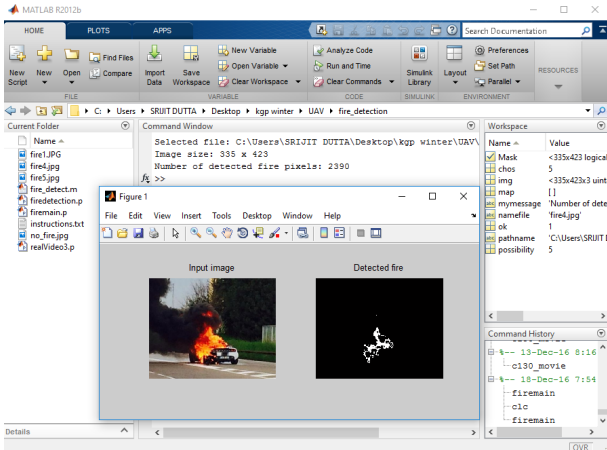


Figure : Fire Detection

Yet to be Implemented

- ▶ Internal layers and structuring of UAVs have not been implemented in detail
- ▶ Integrating fire detection with Box2D simulation yet to be done
- ▶ Machine level implementation not yet done