HIGH-SPEED IR VISUALIZATION LAB

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• High-speed IR detector systems are used for the determination of transient temperature response of materials subjected to dynamic loading.

High-speed IR Camera System

- **High-speed IR camera**
  - 8 x 8 square array of HgCdTe elements (1.1 mm square)
  - Telescopic optical systems for 0.5 to 3 times magnification
  - Multi-plexing data acquisition system
  - 1 million frames per second
  - Highest sensitivity to temperature changes from 275 to 500 K

- **Linear detector array**
  - 16 InSb elements
  - 80 µm elements, spaced 100 µm apart
  - Highest sensitivity to temperature changes from 400 to 1500 K

- **Single detector**
  - HgCdTe element
  - Used with Hopkinson bar