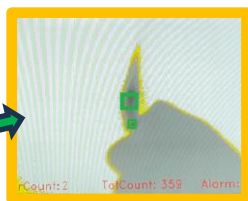


REDBOLT technology detects and minimises safety risks on Longwall and Conveyors

- REDBOLT solution analyses outputs to the LW CME, to **raise an alarm and stop the longwall**, when hot objects exceeding the threshold are identified
- Allows for a **large temperature safety margin** to prevent CH₄ gas ignitions
- Access drifts can be scanned for **failed conveyor rollers and belt rubbing** on structure from misalignment

- ❑ Hot object detection on AFC, moving at up to 4 m/sec
- ❑ Temperature range: 0°C to 550°C
- ❑ Autoignition temperature of methane is 537°C
- ❑ Cutoff threshold set to 115°C
- ❑ Ethernet/IP for SCADA/PLC integration
- ❑ RTSP stream with analytics



Thermal image of a lighter flame

AFC frictional ignition sources:

- Roof bolts
- Rib dowels
- Plates
- Nuts
- Shearer picks
- Sleeves
- Other debris

when dragged through the AFC chain, these objects easily exceed the 537°C auto ignition temperature of CH₄

