

# ECS TOOL DAY

## Sketch Exercise #2

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### Survey of Surface Temperatures (Raytek Spot Pyranometer)

Your challenge:

Find the hottest and coldest surfaces during a 10-minute survey of your lab section meeting place.

Do this:

1. Sketch a corner of the meeting place. Try to include a variety of hot and cold surfaces and objects.
2. Take measurements of all the surfaces and objects in your sketch. To take a reading just pull the trigger to turn on the laser, aim it at your target, and read the surface temperature from the instrument's display.
3. Note the location and value of your extreme readings in the spaces provided below.

Coldest reading:		
Location of coldest reading:		
Hottest reading:		
Location of hottest reading:		

SKETCH:



*Your instrument of choice for this exercise is the Raytek Hand-Held Infrared Thermometer MT-4—a device for measuring surface temperatures. This pyranometer measures the long-wave infrared radiation emitted by a surface. It then calculates the temperature of the emitting surface using a fixed emissivity value (~0.85, typical of non-metallic surfaces). It has a nifty integrated laser pointer to indicate the spot being measured.*