

# Understanding focus modes

## TOPICS COVERED

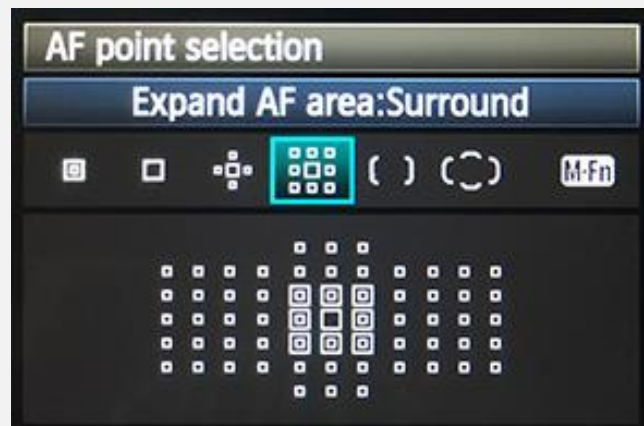
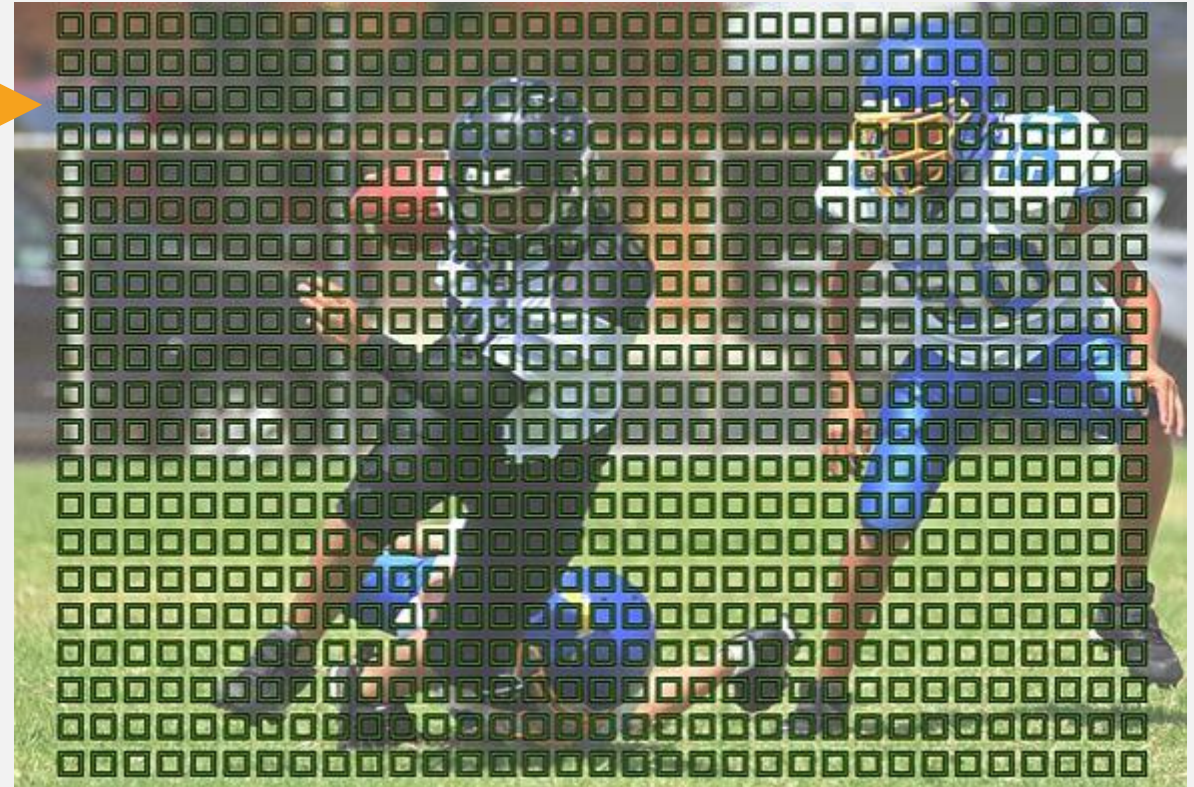
- Focus modes
- Focus point options
- Fine tuning autofocus for action
- Back button autofocus – what is it and why use it
- Focus stacking

# FOCUS MODES

- Single shot (One-Shot, Single Servo or AF-S) - depress the shutter release halfway, the camera focuses on the subject just once
  - Saves battery power
- Continuous (AF-C or AI Servo AF) - keeping moving objects sharp within the viewfinder as you track the subject
  - Predictive (tracking) – camera senses direction and distance of movement of the subject and automatically adjusts focus to match
- Automatic Focus – (AI Focus AF or AF-A) - camera decides which mode to use – camera can make the wrong decision. Most professional photographers do not use this mode
- Manual focus – for precise focus
  - Some cameras can temporarily zoom in when the focus ring moves, to help you set precise focus (focus magnifier)

# FOCUS POINT SETTINGS

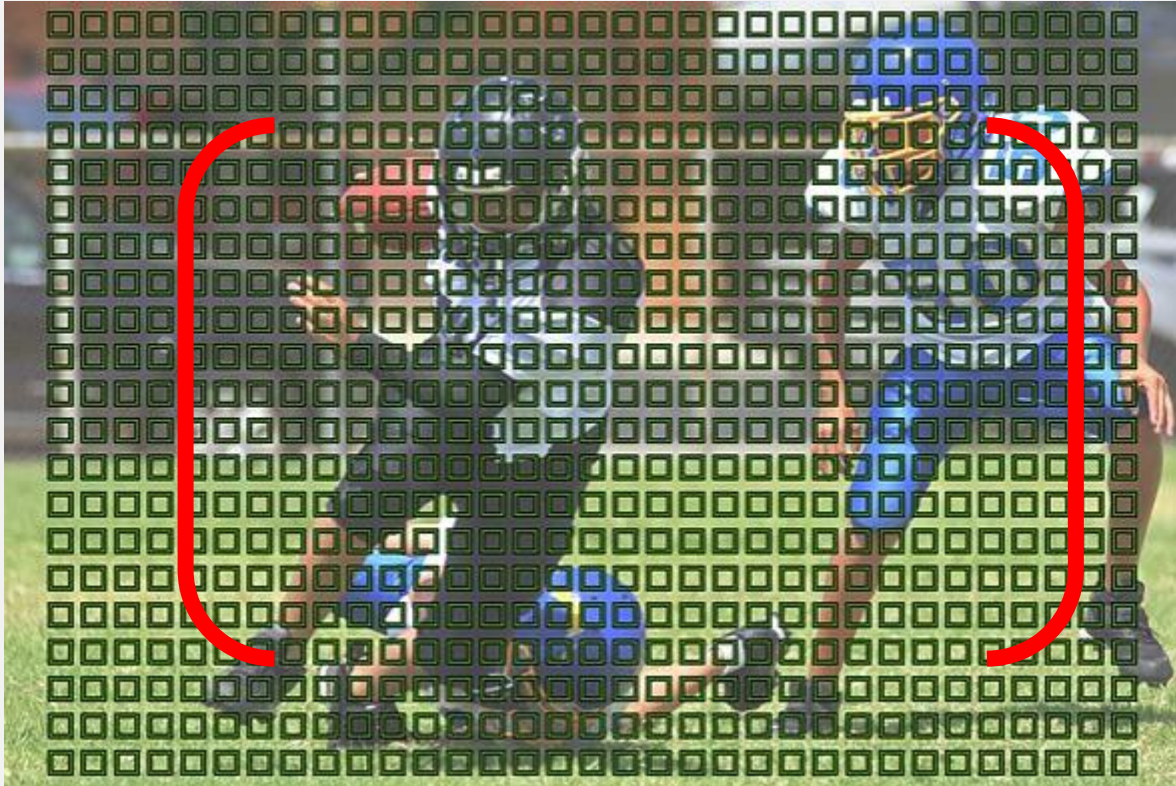
- Let camera decide (all focus pts)
- Wide or Auto Area AF
- Zone
- Spot or Single point
- Expanded spot or Dynamic area
- Expanded lock-on spot





# FOCUS POINT SETTINGS

- **Wide or Auto Area AF** →
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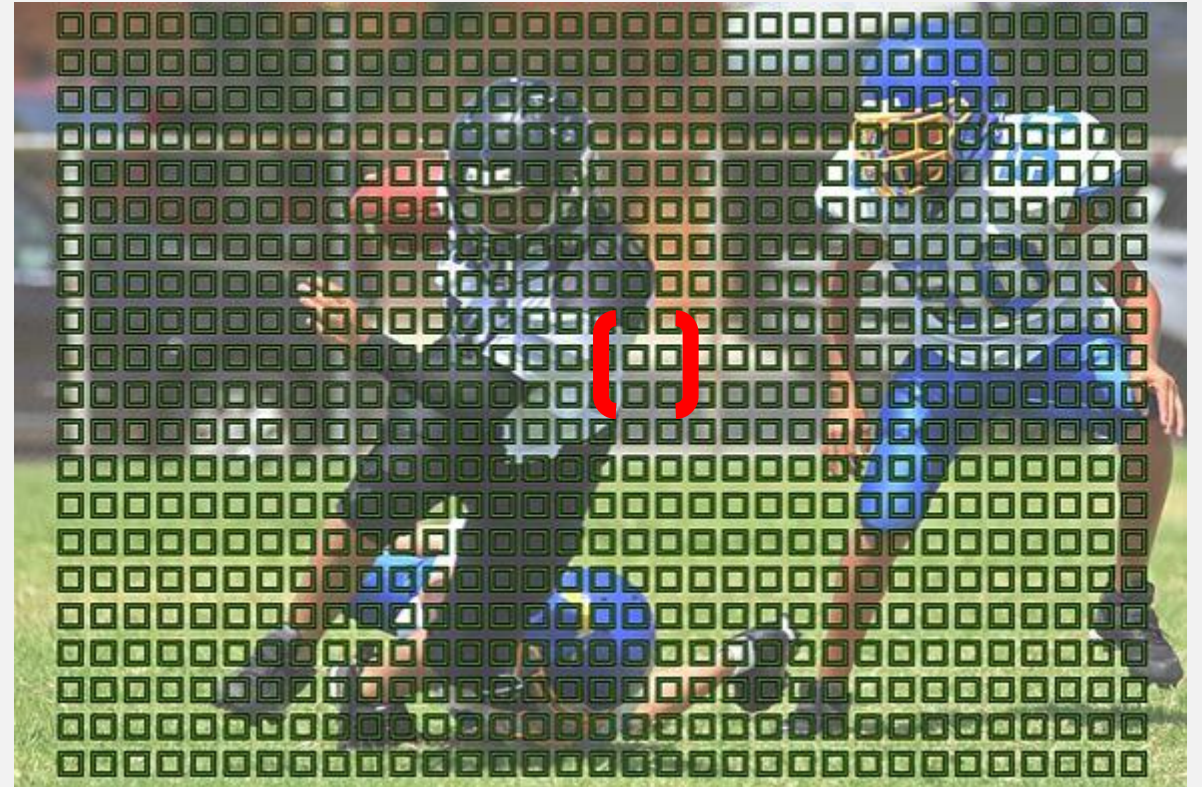
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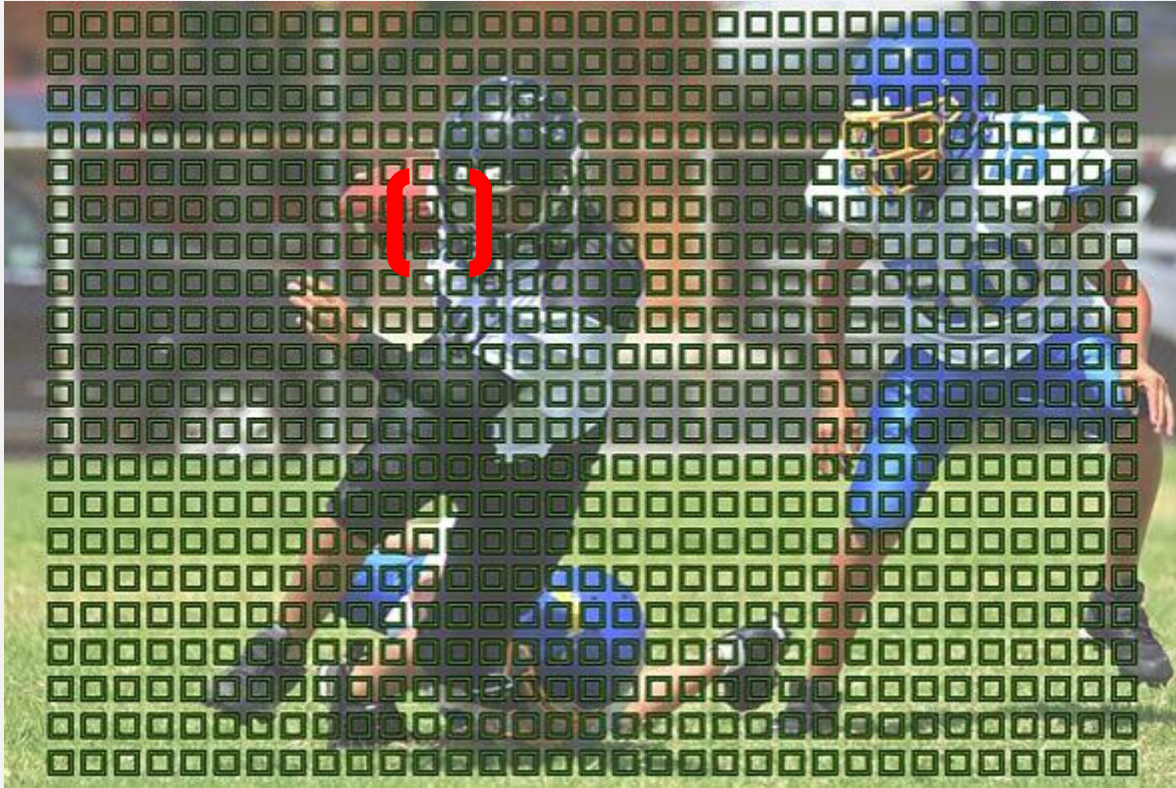
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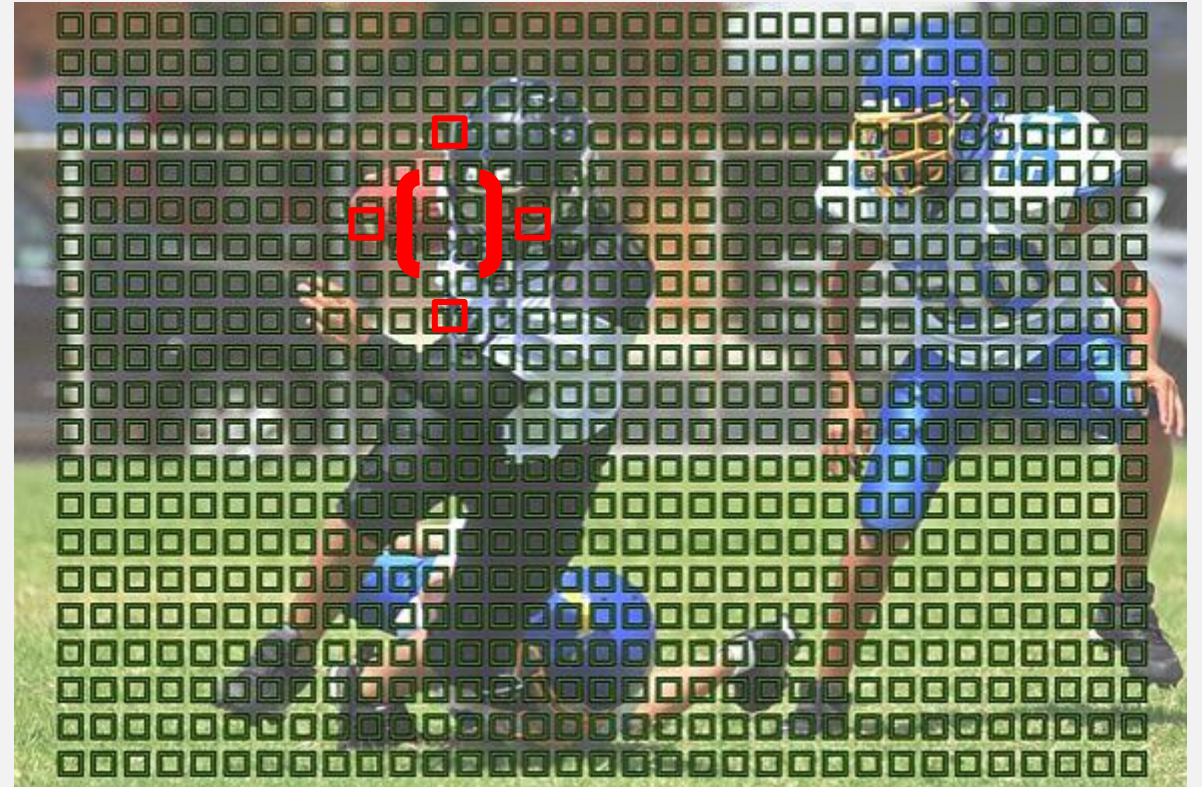
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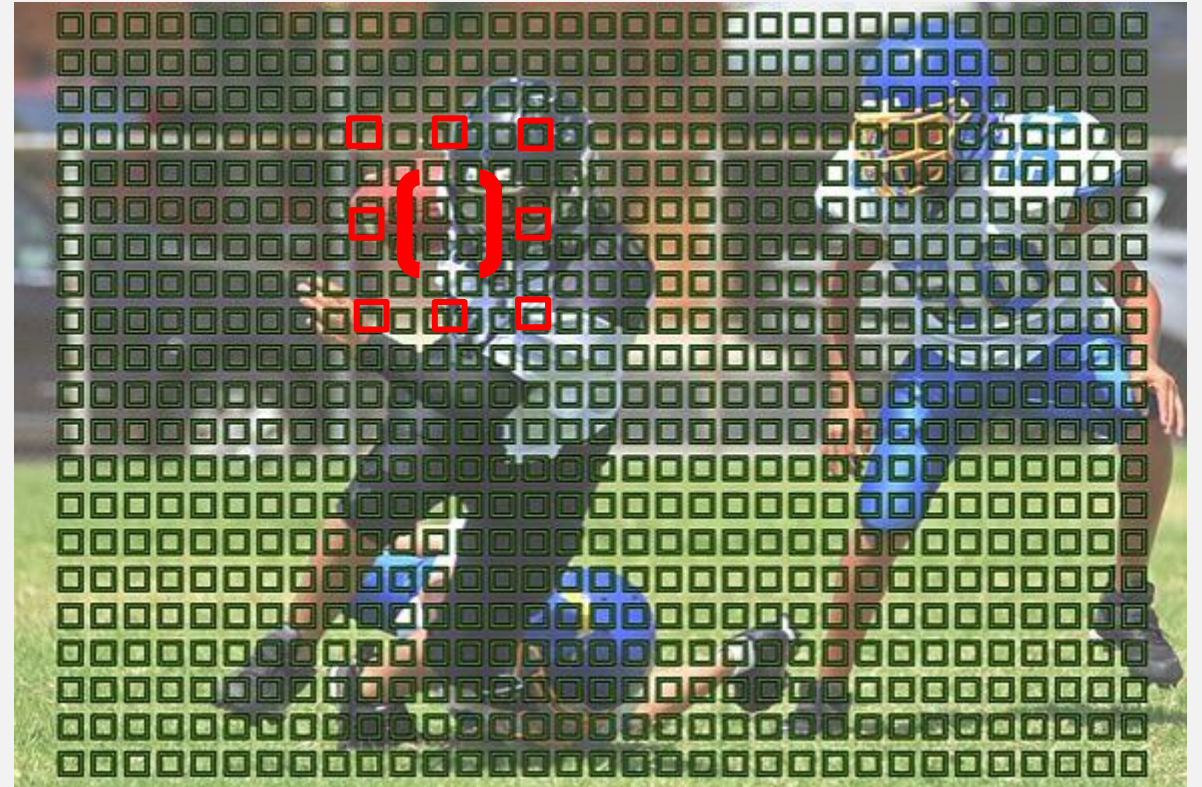
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# FINE TUNING AUTOFOCUS

- Focus responsiveness or tracking sensitivity
  - Important for action photography or shooting video
    - Sports
    - Birds in flight
  - Look for responsiveness settings in your camera, from a slow response to an interruption of the subject, to a very quick response





# FOCUS PEAKING

- Focus Peaking
  - Highlights the portion(s) of the scene that are in focus
  - Usually areas in focus are outlined in a bright color
  - Helps to verify your subject is in focus
  - May only work in manual focus on some cameras



# BACK BUTTON FOCUS

- Separates focusing from shutter release
- Eliminates need to move a switch or program another key to switch between single shot or continuous AF
- Camera won't refocus each time you press the shutter
- Use one of the buttons on the back of the camera, within easy access of your thumb (don't need a specific AF-ON button from manufacturer)
  - Program the button to do continuous AF (or just turn off "AF with shutter" in menu)
- The camera will continually focus while your are holding down the button
- Doubles as single shot AF by just tapping and releasing the button when subject is within the focusing area



# FOCUS STACKING

- Process to create infinite depth of field
- Focus bracketing, done by taking several photos, focused at different depths
- Combine the photos in post processing
- Using Photoshop
  - Load each photo into PS as separate layers
  - Align all the layers (probably not required if taken on a tripod, but never hurts)
  - Use Edit > Auto-Blend Layers
  - Zoom in and examine the photo for errors in blending
  - May want to manually blend the layers using masks and skip Auto-Blend Layers





# FOCUS STACKING

- Useful for:
  - photographing a scene with great distance between the foreground and background
  - using an ultra-wide-angle lens with a subject close to it
  - zooming in on a scene, such as a forest, and you want everything to be sharp even with an open aperture
  - photographing small scenes and macro photography in general
- Some cameras can automatically combine several photos, in camera, like Olympus
- Apps and hardware can do it automatically
  - Helicon Focus software
  - Helicon Focus Tube (lens adapter)
  - Zerene Stacker