* **Points Taken:**
* Explicit tracking is done by looking at discrete image features that don’t form a continuum like texture or edge pixels (edgels)
* Extraction of corners are reliable and meaningful, but the lack of
* Edge Tracking Problem: Motion problem pertains to the aperture problem that prevents us from undertaking explicit edgel matching.
* Moravec Corner Detector: Take a local window within the image, and use that window to determine the average changes of image intensity that result from shifting the window by a small amount in various directions.
  + Three Cases
    - Window Image Patch is FLAT – The intensity is approximately constant and any shifts in that region by the window will only result in a small change.
    - Window is on an EDGE – Any shift along the edge, results in a small change, but if a shift is done perpendicular to the edge, this will result in a large change.
    - Windows is a CORNER - All shifts will result in a large change. Corner is detected by finding when the minimum change produced by any shifts is large.
  + Mathematical Representation of the three cases
    - * wuv  = the image window that equals 1 within a specified rectangular region and 0 elsewhere.
      * *𝑥,𝑦* = the change produced by shifts in
      * (x,y) = the shifts that are comprised of the set {(1,0), (1,1), (0,1), (-1,1)}

(1,0) - Right

(0,0) – No shift

(0,1) - Down

(1,1) – Right and Down

(-1,1) – Left and Down

* + - **Basically, the moravec corner detector looks for a local maxima in min{E} above some threshold value.**
* **Review Concepts:**
* Epi-polar Camera Geometry
* Kalman Filtering
* Hysteresis
* Spurs and short edges
* Local maxima – Largest value that the function can take locally.