

Gruppenmitglieder

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Kontrollfragen

- a) Nennen Sie die wesentlichen Bestandteile beider Tracker
 - ⇒ Block matching: input frame, starting point, width of window
 - ⇒ Particle Filter: input frame, starting point, number of particle

- b) Welche Probleme treten jeweils bei den Verfahren auf? Wie können diese verhindert werden?
 - ⇒ Block matching: tracker gets lost at some time. In exercise, if we choose the starting point at red side, and the window size is 25, near the middle of the video, the window will contain the background (ideally window only contain a part of red size). That leads to wrong SSD computational and the tracker would be in wrong place.
 - How to solve: select appropriate window size (not too big, so it less likely contain background, but also not too small, or else the result of SSD computational would be biased). But ideally, create a video with clear tracking surface at all frames (not appropriate for real-time tracking)
 - ⇒ Particle filtering: tracker gets confused with background. In exercise, if we choose the starting point at yellow side, all particles will separate from yellow side and the holder's arm, because the RGB's value of 2 areas here is basically the same.
 - How to solve: how large the particle separation based on the likelihood of the weight after resampling. One solution we might try is to increase negligible weight, so we might avoid particles at background.