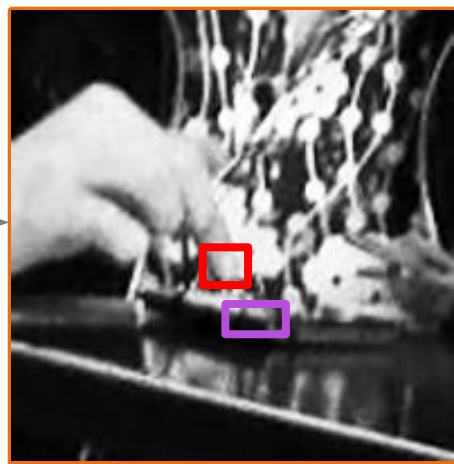


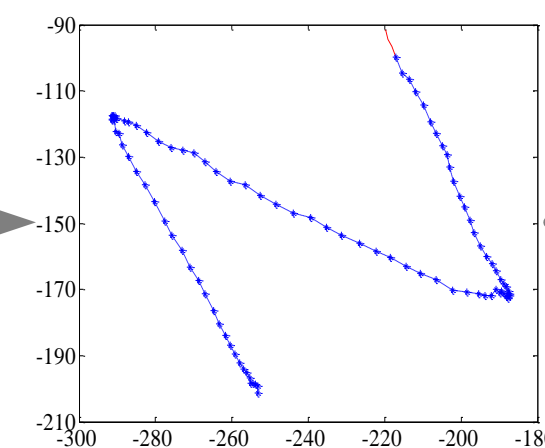
(a) Video footage

1
Preprocessing



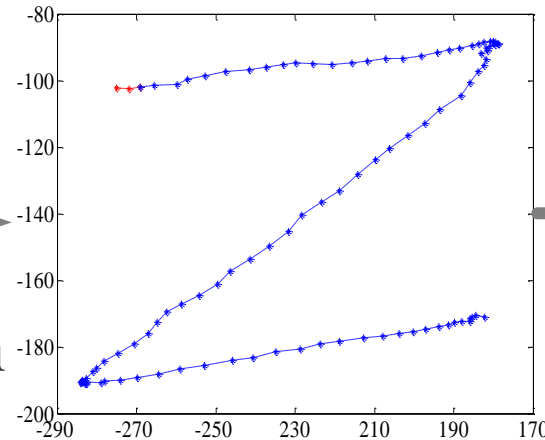
(b) Marked tracking areas

2
Track fingertip location



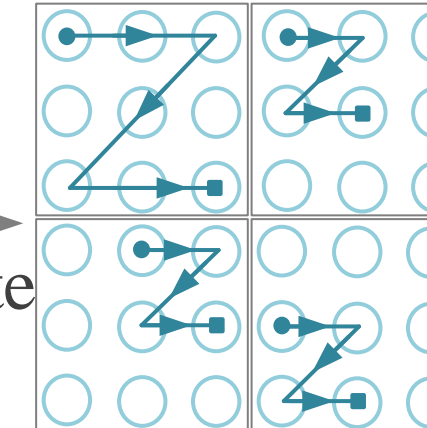
(c) Fingertip trajectory (camera's perspective)

3
Filming angle transformation



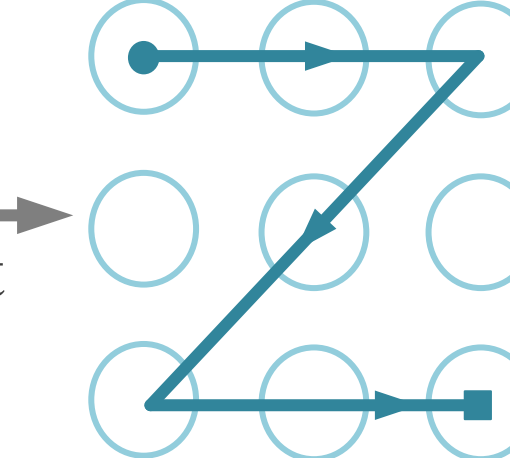
(d) Transformed trajectory (user's perspective)

4
Identify candidate patterns



(e) Candidate patterns

5
Lightweight trails



(f) Correct pattern