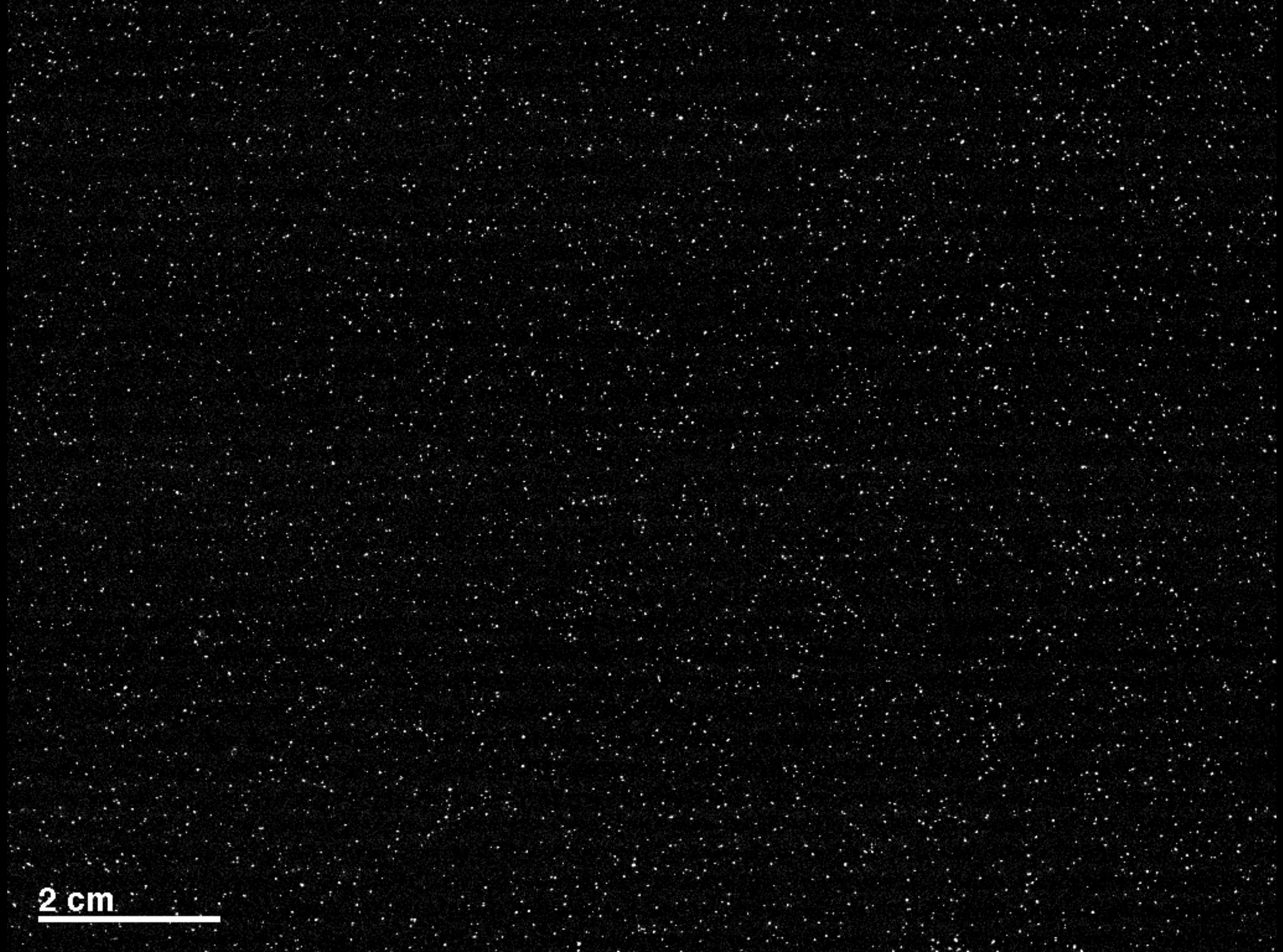
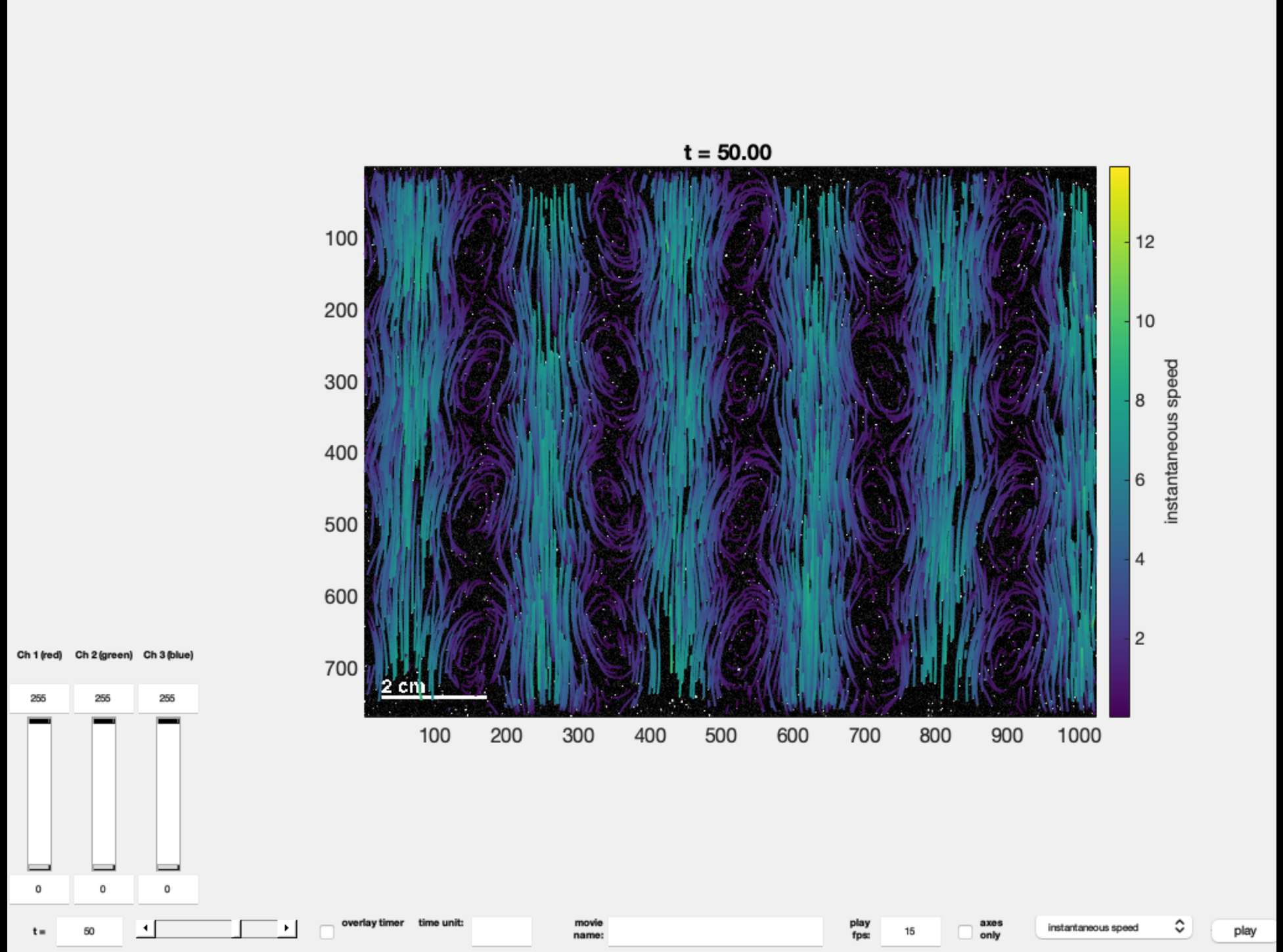
Writing a Methods section

Explain what you did so that an engineer could repeat your work.

- Post the question(s) being addressed
- State the data you used to answer this question, explaining why this data is appropriate to answer it
- Explain the experimental setup and how you made it
- Explain process of data collection
- Explain how you analyzed the data

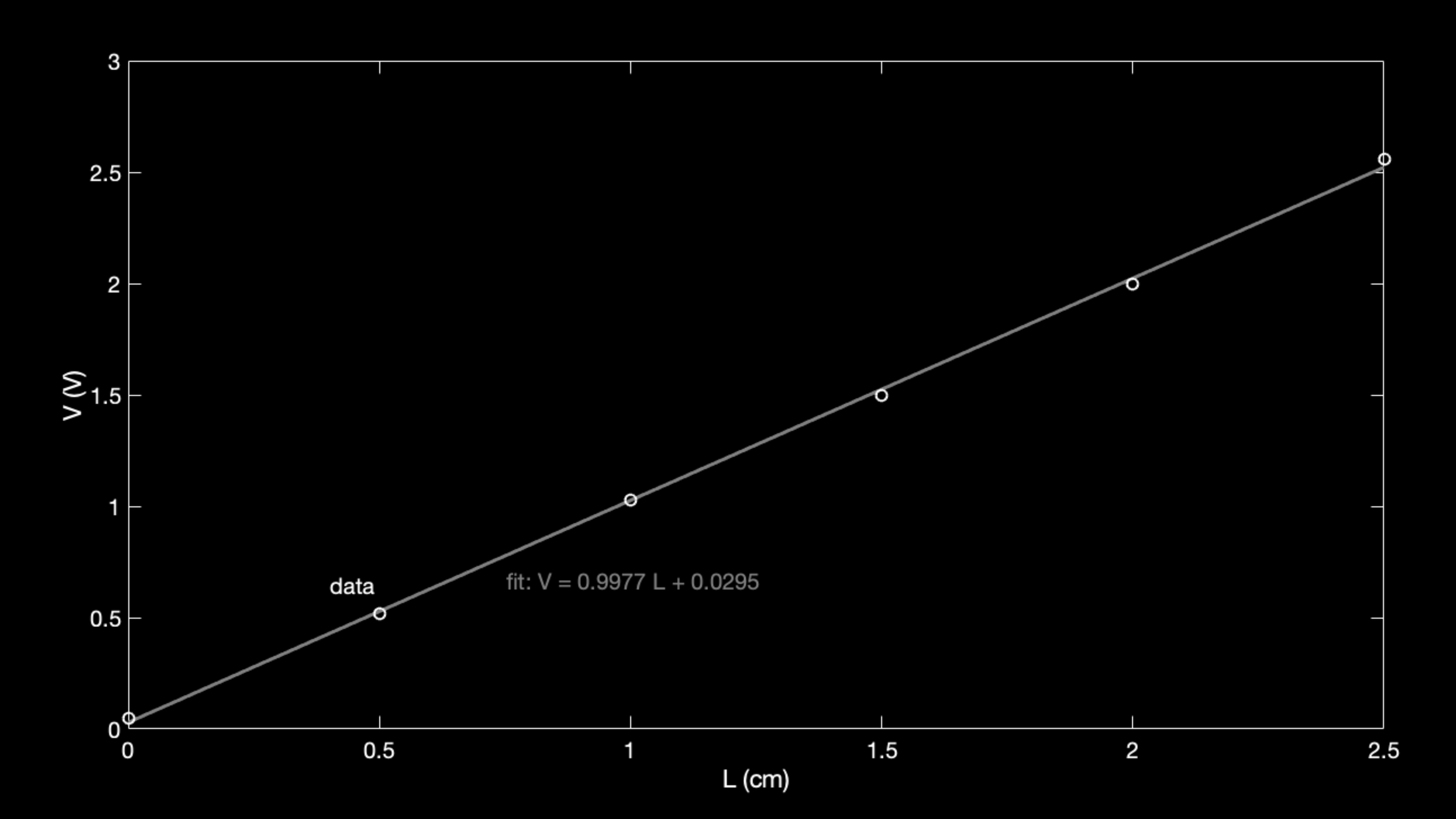

2 cm


t = 50.00
100
200
300
400
500
600
700
2 cm
100
200
300
400
500
600
700
800
900
1000
12
10
8
6
4
2
instantaneous speed
Ch 1 (red)
Ch 2 (green)
Ch 3 (blue)
255
255
255
0
0
0
t =
50
overlay timer
time unit:
movie name:
play fps:
15
axes only
instantaneous speed
play

Ex. 6.20: A linear variable differential transformer (LVDT) is a transducer for measuring displacements, which outputs a voltage. Five displacements L_i and corresponding voltages V_i are listed below. Calculate the best linear fit and coefficient of determination.

L_i (cm): 0.00, 0.50, 1.00, 1.50, 2.00, 2.50

V_i (V): 0.05, 0.52, 1.03, 1.50, 2.00, 2.56


3
2.5
2
1.5
1
0.5
0
V (V)
0
0.5
1
1.5
2
2.5
L (cm)
data
fit: V = 0.9977 L + 0.0295