

LAMPIRAN

Lampiran 1. Hasil Pengolahan Data

Tabel Persentase Visualisasi Vortex pada Turbulator dengan Pitch 15mm dan $w/k < 1$

Turbulator $w/k < 1$ Pitch 15 mm					
No.	Sudut	Persentase (%)		Jumlah vortex	
		Re=846	Re=1411	Re=846	Re=1411
1	0	92,3	76,9	12	10
2	10	92,3	76,9	12	10
3	20	92,3	76,9	12	10
4	30	92,3	76,9	12	10
5	40	84,6	76,9	11	10
6	50	84,6	76,9	11	10
7	60	84,6	69,2	11	9
8	70	84,6	53,8	11	7
9	80	76,9	0,0	10	0
0	90	76,9	0,0	10	0

Tabel Persentase Visualisasi Vortex pada Turbulator dengan Pitch 30mm dan $w/k > 1$

Turbulator $w/k > 1$ Pitch 30 mm					
No.	Sudut	Persentase (%)		Jumlah vortex	
		Re=846	Re=1411	Re=846	Re=1411
1	0	100	100	6	6
2	10	100	100	6	6
3	20	100	100	6	6
4	30	100	100	6	6
5	40	100	100	6	6
6	50	100	100	6	6
7	60	100	100	6	6
8	70	100	100	6	6
9	80	100	100	6	6
0	90	100	100	6	6

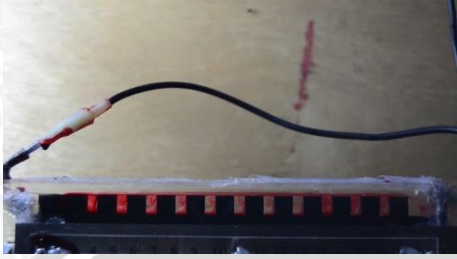
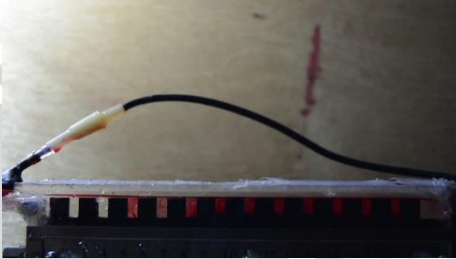

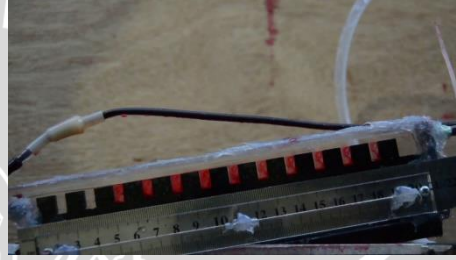

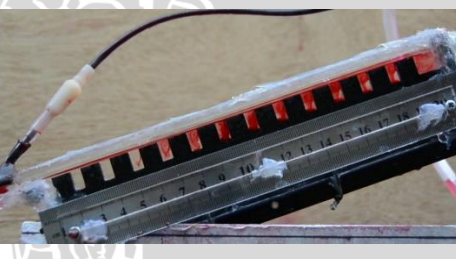
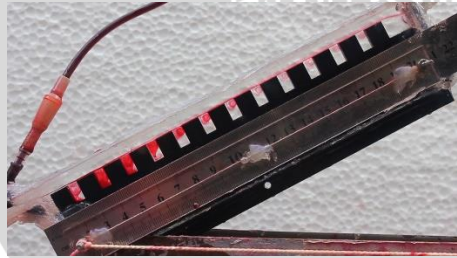

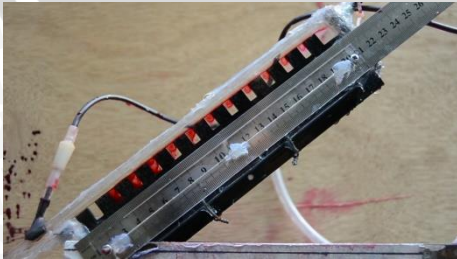
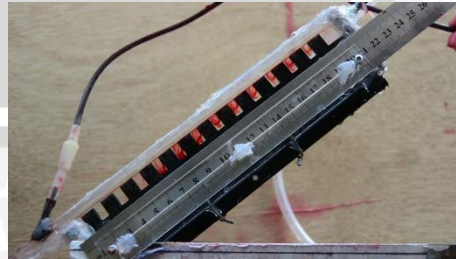
Tabel Persentase Visualisasi Vortex pada Turbulator dengan Pitch 20mm dan $w/k=1$

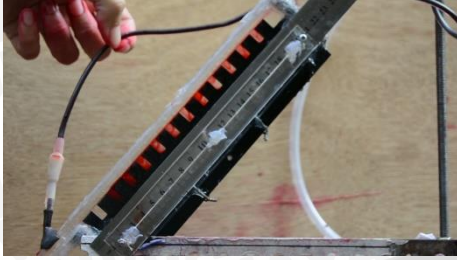
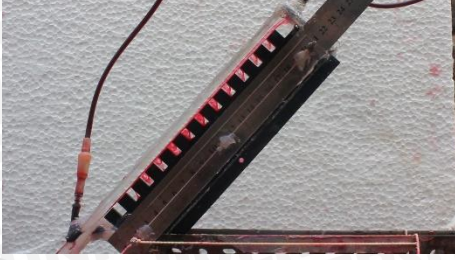
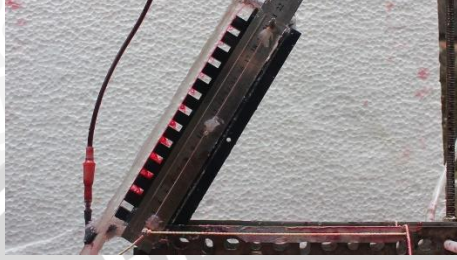
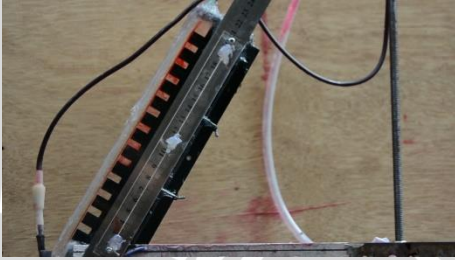


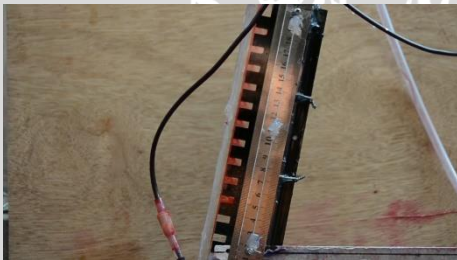
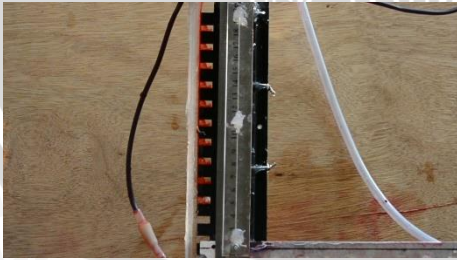
Turbulator $w/k=1$ Pitch 20 mm					
No.	Sudut	Persentase (%)		Jumlah vortex	
		Re=846	Re=1411	Re=846	Re=1411
1	0	100	90	10	9
2	10	100	90	10	9
3	20	100	90	10	9
4	30	100	90	10	9
5	40	90	90	9	9
6	50	90	90	9	9
7	60	90	90	9	9
8	70	90	90	9	9
9	80	90	90	9	9
0	90	80	40	8	4



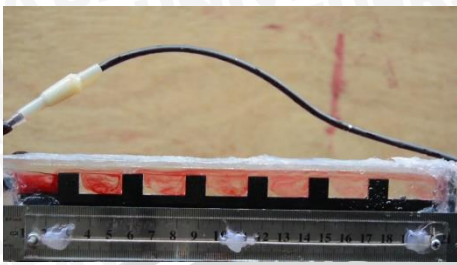
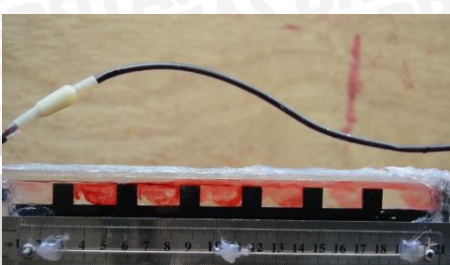








Lampiran 2. Visualisasi Persebaran Vortex

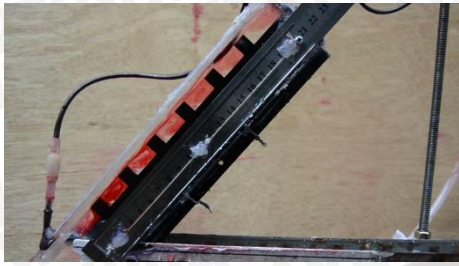
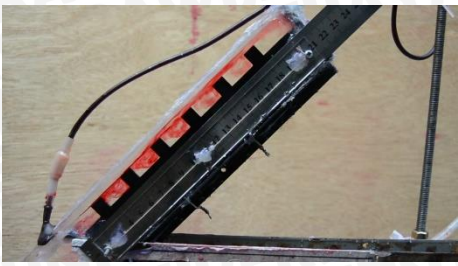
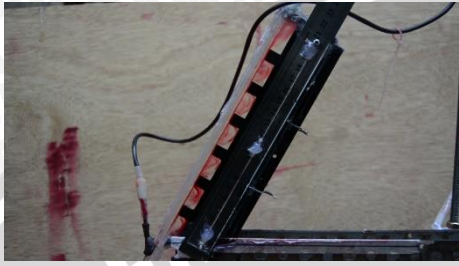
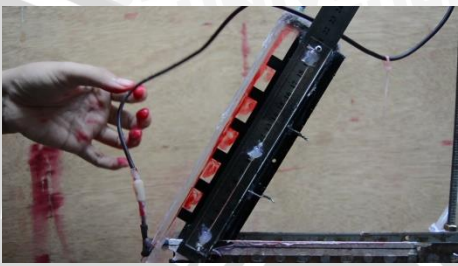
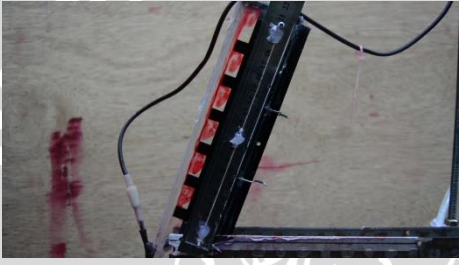
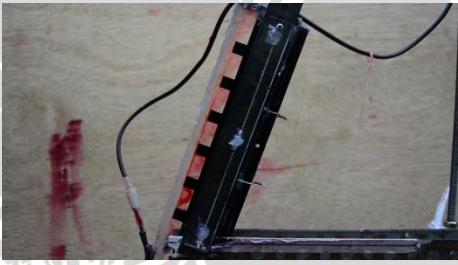
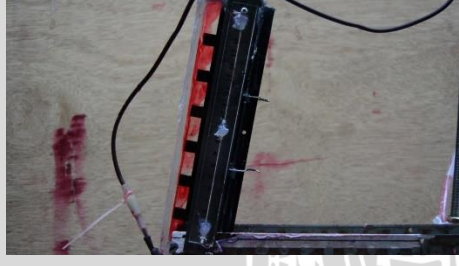
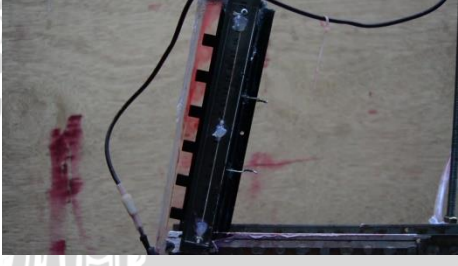
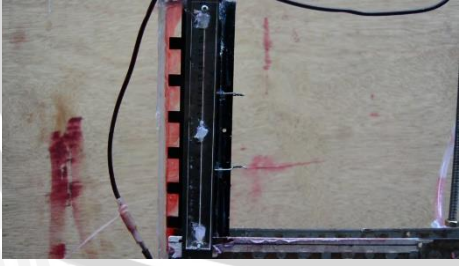
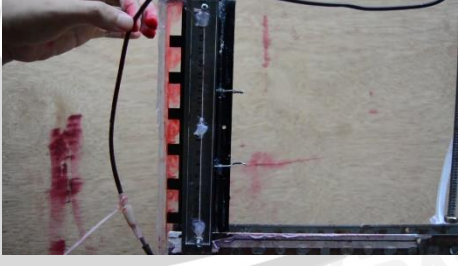
Tabel Visualisasi persebaran vortex pada turbulator $w/k < 1$

No.	Sudut	Turbulator 1, $w/k < 1$	
		Re 846	Re 1411
1	0		
2	10		
3	20		
4	30		
5	40		

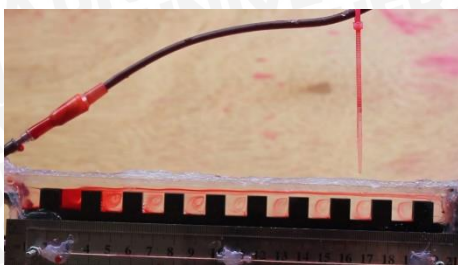
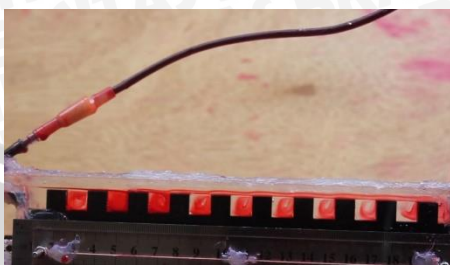
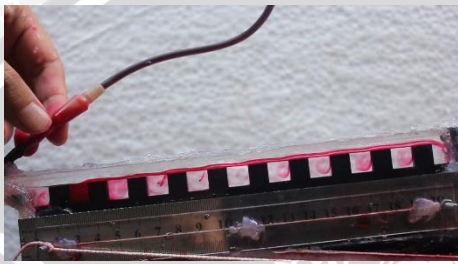
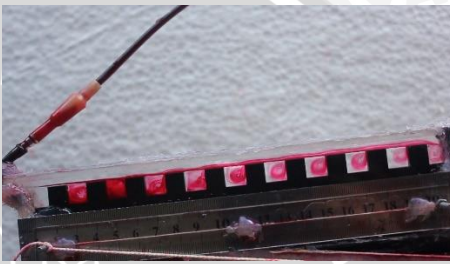
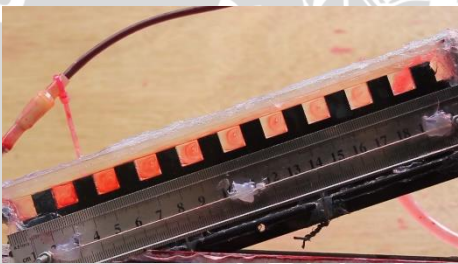

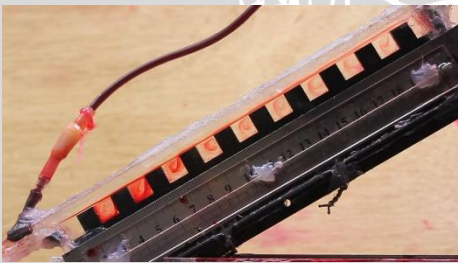
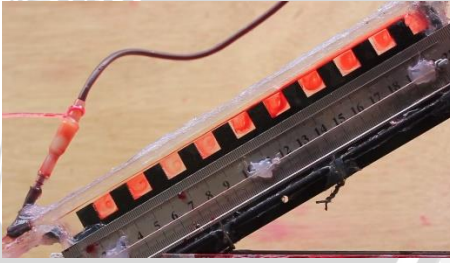
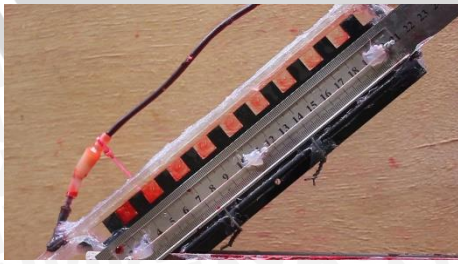
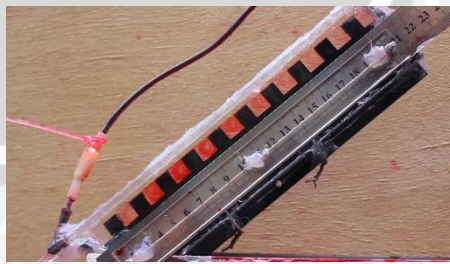
6	50		
7	60		
8	70		
9	80		
10	90		

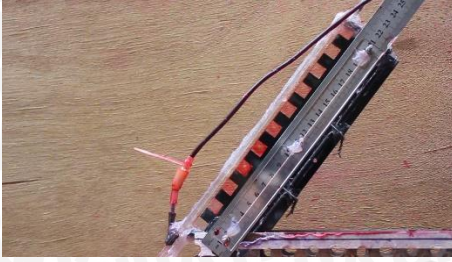
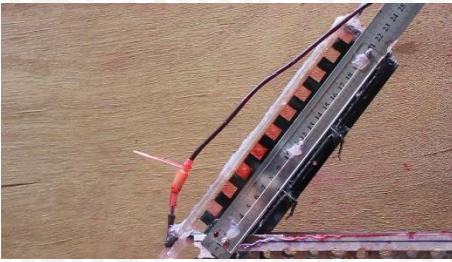
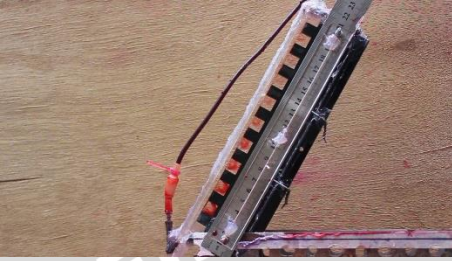
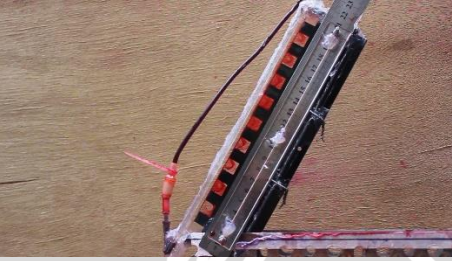
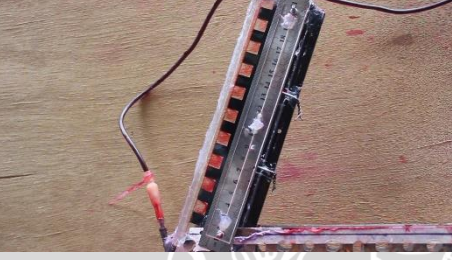
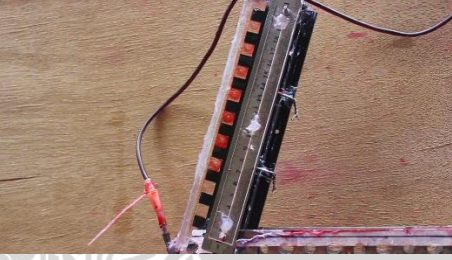
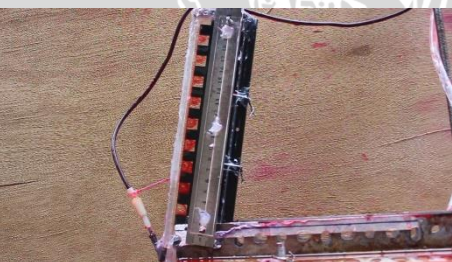
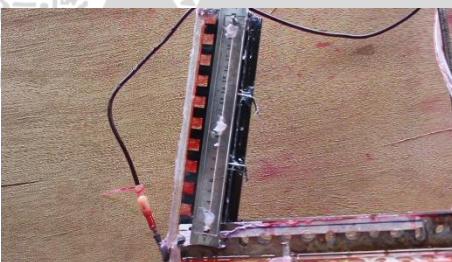
Tabel Visualisasi persebaran vortex pada turbulator w/k>1

No.	Sudut	Turbulator 2, w/k>1	
		Re 846	Re 1411
1	0		
2	10		
3	20		
4	30		
5	40		

6	50		
7	60		
8	70		
9	80		
10	90		

Tabel 4.1 Visualisasi persebaran vortex pada turbulator w/k=1

No.	Sudut	Turbulator 3, w/k=1	
		Re 846	Re 1411
1	0		
2	10		
3	20		
4	30		
5	40		

6	50		
7	60		
8	70		
9	80		
10	90	