

1. Session Four

1.1. Testing the intensity through a varying number of filters between the same angle

1.1.1. Procedure (Practical Method)

1. Set up the equipment with white LEDs.
2. Turn on the micro-controller, and set two filters to the initial angle (90 degrees).
3. Record the initial intensity sensor value.
4. Add the next filter, keeping the same total angle but changing the angle between adjacent filters to ensure offset is equidistant.
5. Repeat steps 2-4 with a varying range of initial angles.

1.1.2. Table of Results

For this session, I continued with the third experiment, taking all the required readings.

Number of filters	Total angle in degrees								
	45			30			0		
	1	2	3	1	2	3	1	2	3
2	496	490	481	634	635	630	841	841	838
3	518	518	517	581	580	589	722	725	720
4	530	531	526	543	545	542	620	619	621
5	464	465	462	467	471	471	535	537	541
6	420	419	411	403	404	400	454	456	454
7	360	356	359	344	348	349	400	392	405
8	322	322	323	310	314	313	331	330	328

Due to the more complex method, these results took longer to record than the last two experiments. In this session, I recorded three repeats for initial angles of 90 and 60 degrees, and at 0 degrees as a control test.