

## Initial Bill of Materials - Electrical

Electrical Component Costs				
	Unit	Used	Cost (ukp)/Unit	Cost (ukp)
PCBs				
Line Following	each	1	6.50	6.50
Prototype	each	2	7.60	15.20
			Total	21.70
Passives				
Resistors	each	22	0.01	0.22
Capacitors	(quote)	2	-	1.40
			Total	1.62
Connectors				
D Plug/Socket	each	3	0.70	2.10
Molex Pins	each	3	0.40	1.20
Molex Body	each	3	0.30	0.90
Molex Crimps	each	15	0.02	0.30
			Total	4.50
Semis				
Phototransistor	each	1	0.43	0.43
HC 74	each	2	0.19	0.38

Components by Sensor		
Line Following		
LF PCB	1	
Optical	4	
Resistors	12	
3mm LEDs	4	
HC 74 Schmitt	1	
PCF8574	1	
Colour Sensor		
5mm LED	1	
LDR	3	
Resistors	4	
Coloured filter	6	cm^2

555 timer	each	1	0.46	0.46
Binary counter	each	1	0.32	0.32
PCF8574	each	3	4.40	13.20
			Total	14.79
Sensors				
Optical (Line)	each	4	4.71	18.84
Distance	each	1	15.91	15.91
			Total	34.75
LEDs				
3mm (Low current)	each	4	0.09	0.36
5mm (Low current)	each	1	0.09	0.09
IR emitter	each	1	0.42	0.42
			Total	0.87
Other				
Optical filter	cm^2	6	0.20	1.2
			Total	1.2
			Grand Total	79.43
				ukp

<b>IR Detector</b>		
Phototransistor	1	
HC 74 Schmitt	1	
PCF8574	1	
555 timer	1	
Binary counter	1	
Resistors	2	
Capacitors	2	10nF, 22uF
PCB	1	
<b>IR Emitter</b>		
IR diode	1	
Resistors	2	
<b>Distance Sensor</b>		
Distance detector	1	
PCF8574	1	
PCB	1	
Resistor	2	