

Circuits Final Design Project: Interest Inventory (fall 2022)

1. Please Rate your interest in each project idea on a scale of 1 to 10 (1 = (dreadful, please don't make me do it; 10 = super jazzed about this one!)

Music & Lights	EMG 'prosthetic'	Pulse Ox and HR	Muon Detector	Desert Island	Solar panel tracker	Your own idea

2. If you are thinking of pursuing your custom self-propelled project idea, please share as many details as possible about it here.
 - o What is the practical aim/application of the project?
 - o What concepts are employed that we learned in circuits and/or new ones you will learn and integrate?
 - o What components do you need? Call attention to any parts we are NOT likely to find in lab (ones we'll likely have to custom order)
3. For each of your top 2 projects please do your best to describe to fill in details about the actual circuit design. Feel free to research and reference external resources. The instructor can point you to some good and trustworthy references as needed (about 10% of designs on the internet are good; unfortunately the majority are junk).
 - a. Draw a functional block diagram and how various ones link together (high level ideas e.g. 'amplify signal by factor of 100x' or 'bandpass filter 20-200 Hz' or 'measure 3x3 grid of light intensity using photodiodes', or 'turn elbow joint proportionally to EMG amplitude')
 - b. To the best of your ability, diagram the circuit diagram required to implement each of your functional blocks. Show how each functional block is connected.