30		***Communication***
	–	IEEE single column, double spaced format, title, author, etc. (–20 pts if not used)
	5	Style (written in the style of article, rather than disjointed figures and tables)
	5	English (grammar, punctuation, and etc.)
	5	Clarity (purpose of each section clearly explained)
	3	Succinctness and precise wording (detailed information in as few words as possible)
	3	Organization (ease of locating figures/code/equations/etc.)
	3	Section numbers and headings (use section numbers shown below)
	3	Equations explained (at least one sentence between equations)
	3	Figures complete (every figure numbered, captioned, and referred to in text)
5		***Abstract*** (succinct summary of results, including numerical values as appropriate)
10	**I.**	**INTRODUCTION**
	8	Motivation for lab [create EMG circuit, useful for medical diagnostics]
	2	State report organization [briefly describe contents of sections that follow]
10	**II.**	**ELECTRODE AND PRE-AMP MODELING** (Lab 1b Section V)
		A. *Electrode model*
	1	Introduce section [to demonstrate need for pre-amp to drive diff-amp]
	1	Explain electrode model [small v-source in series with 1 MΩ]
	1	Describe experiment simulating electrode driving diff-amp [include Fig. 2a]
	1	Mention ratio of electrode model circuit output to input [$v_2/v_{6V\ pwr\ supply}$]
	2	Explain that electrode unable to drive diff-amp [signal too small]
		B. *Pre-amp model*
	1	Explain pre-amp output model [small v-source in series with 10 Ω]
	1	Describe experiment simulating pre-amp driving diff-amp [include Fig. 2a]
	1	Mention ratio of pre-amp model circuit output to input [$v_2/v_{6V\ pwr\ supply}$]
	1	Explain that pre-amp is able to drive diff-amp [signal out ≈ input]
5	**III.**	**PRE-AMP CONSTRUCTION** (Lab 1a Section VI)
	1	Describe pre-amp circuit [buffer configuration, output v = input v]
	2	Include figure showing pre-amps schematic [Lab 1a Fig. 6b, crop out LED's]
	1	Describe testing procedure
	1	Describe testing results
25	**IV.**	**DIFFERENTIAL AMPLIFIER DESIGN AND TEST** (Lab 1b Section VI, VII.A,B)
		A. *Analysis of differential amplifier*
	1	Describe differential amplifier circuit [Lab 1b Fig. 4]
	5	Derive the formula for v_3
	3	Derive the formula for v_3 written in terms of v_{cm} and v_{dm}
	5	Derive the formula for v_3 written in terms of $\Re=R_1/R_2=R_3/R_4$
	1	Explain that v_3 written in terms of $\Re$ is only a function of v_{dm}
		B. *Design of differential amplifier*
	1	Describe constraints for design (Lab 1b Section VIII.A)
	3	Explain how resistor values were chosen
	1	List values of resistors used in diff-amp
		C. *Testing of differential amplifier*
	1	Describe testing procedure [Lab 1b Fig. 7]
	3	Show plot of v_3 vs v_{s1} and v_{s2} with linear fit superimposed
	1	Explain calculation of gain of diff-amp [= slope of plot] and list value of gain
10	**V.**	**EMG MEASUREMENT** (Lab 1b Section VIII)
		A. *Measurement of EMG*
	1	Explain how electrodes and oscilloscope connected for EMG
	3	Show plot of EMG from oscilloscope
		B. *Power vs weight for EMG signal*
	1	Explain how power for EMG calculated [Lab 1b Eqn (6)]
	4	Show plot of power vs weight
	1	Comment on plot [describe shape, possible measurement errors]
5		**CONCLUSION** (summarize key results; include numerical values as appropriate)