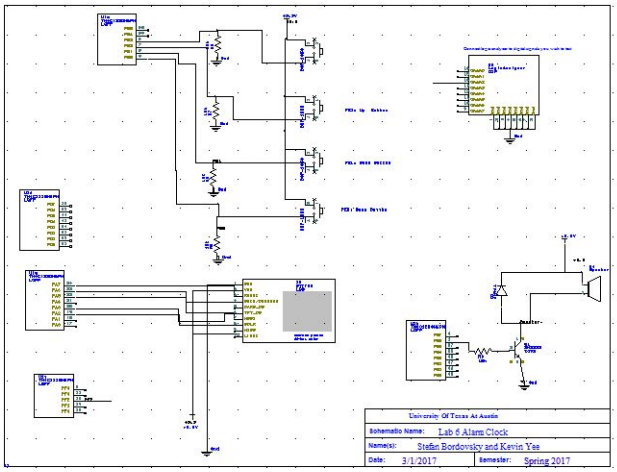
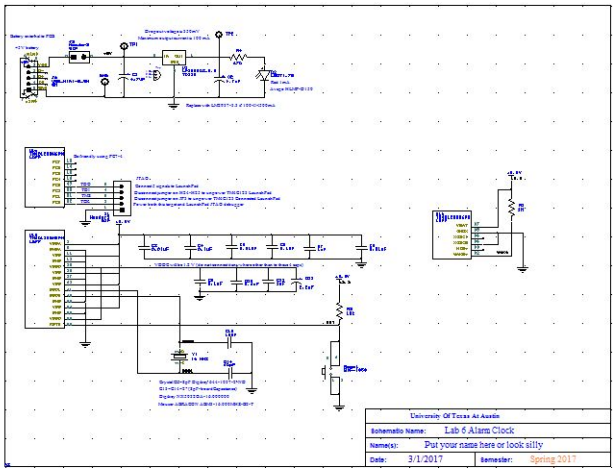
Lab 6 Introduction to PCB Design

Kevin Yee and Stefan Bordovsky

Preparation (do this before your lab period)

1. Lab 3 Alarm Clock was chosen for our PCB design





See PCB Design for better View

2.

Specifications: 5V, 1000mAH

3. Decide on the PCB size you need to hold all the components, see Figure 6.3. Choose a box in which to enclose the system. Go to a box manufacturer (like http://www.pactecenclosures.com/ or http://www.serpac.com/) and select a box for your system. There are lots of Pactec and Serpac boxes in the lab if you want to see what they look like. You will need to know the box dimensions and cost. The starter files are configured for *Lab9Box.pcb* see http://users.ece.utexas.edu/~valvano/HowToDesignEnclosureMakerspace.htm

Our Design will use a 7.175 inch by 4.045 inch box produced by Hammond

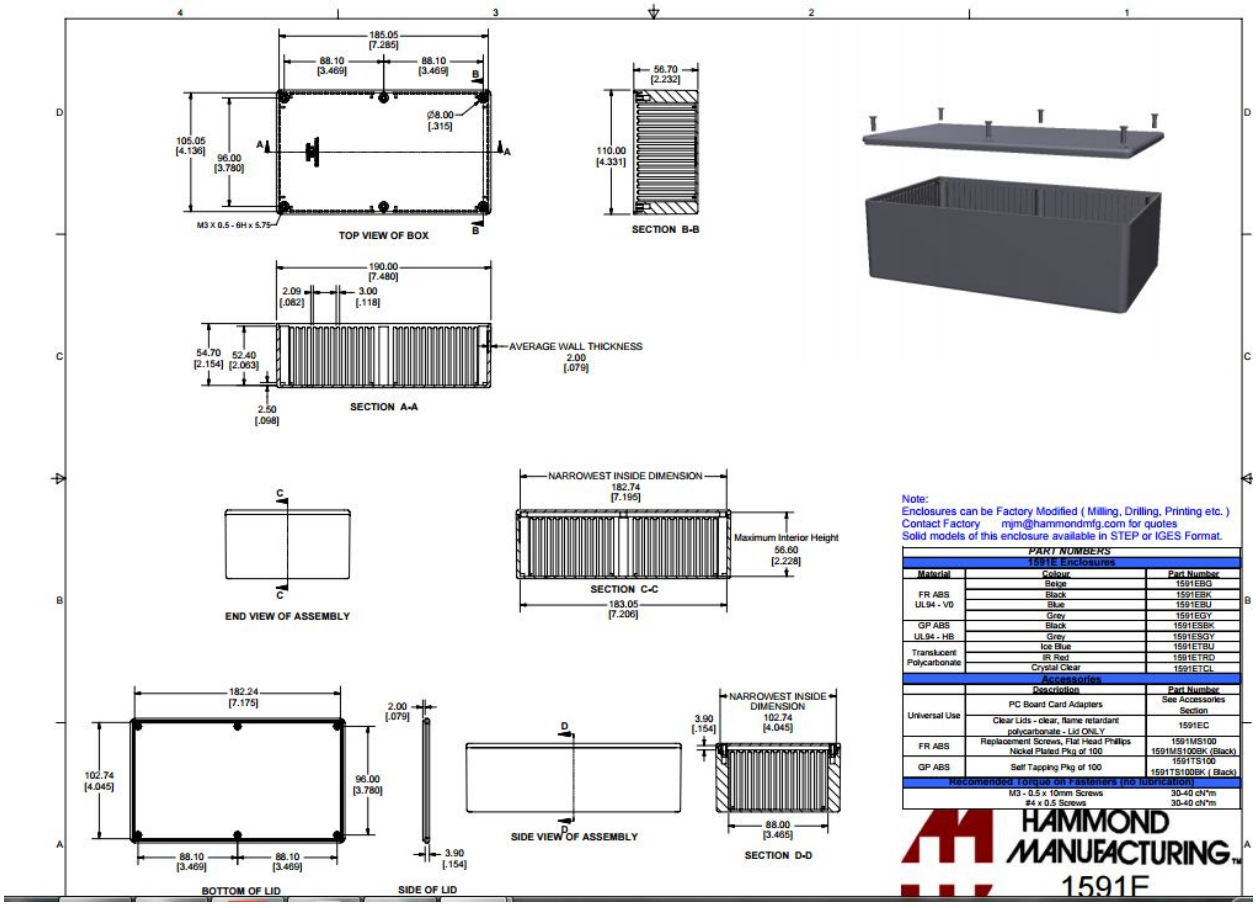


Figure 6.3a. Mechanical drawings for the Pactec XP enclosure.

Figure 6.3b. Mechanical drawings for the Hammond 1593Y enclosure.

4. Order a free sample from the internet or select a part from Enovation Controls. The last page of the course syllabus lists four web sites that give free samples. We strongly suggest you pick a part that you could use in Labs 7,8,11. It will be OK if the part is surface mount. However, please select a part that is available for immediate shipping so you can use it this semester. For example, if your project will have sound, I suggest you order a speaker amplifier (class AB). **We will NOT be giving MC34119 parts out for Labs 7, 8, 11.** On Texas Instruments website, click Audio, click Speaker amplifier (dynamic speaker), and then choose a part (like TPA731 or TPA751). The 8-pin SOIC package will not be horrible to solder. Pin 1 on the TPA751 should be high to enable. Pin 1 on the

TP731 should be low to enable. Otherwise the TPA731 and TPA751 have the same pinout. Avoid packages with pins under the chip, like the very cool 3-axis accelerometers.

Order Complete

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Thank you. Your order has been successfully submitted.

Order number: 1381064
Order date: 3/1/2017 5:11 PM
Status: Order Placed - In Work

Order total: $0.00
Payment: $0.00

Balance: $0.00
Unprocessed Payments: $0.00

Shipping address
Kevin Yee
University of Texas at Austin
2304 Leon St
Austin, TX 78705
United States

Billing address
Kevin Yee
University of Texas at Austin
1238
Sugar Land, TX 77479
United States

	Item	Type	Stock status	Unit price	Quantity
	TLV5618ACP TLV5618ACP-12-Bit, 2.5 us Dual DAC, Serial Input, Pgrmable Settling Time, Q temp available	Sample Request	In Stock	$0.00	1