Budget

For the budget we decided to go focus on some of the general parts that we are going to need for our different circuit blocks since we haven’t fully designed our circuit blocks yet. That is why we decided to get some resistor packs and capacitor kits that way we can have a good variety of each to work with. The same goes with the jumper wire kits and the breadboards. For the optical sensors, op amps, phototransistors and the servo motors we also gave a general estimate because we were not sure about the specifics just yet. For a lot of these parts they might be readily available in the stockroom so when that is the case we will be sure to update the budget in the future differentiating whether it was a part from the stockroom or a part we ordered. Any extra parts that we get either ordered or from the stockroom will be added as extra to the budget when it happens as well as other expenses. This includes parts that are not listed or parts that we needed even more of. For the firing mechanism we picked fifty dollars as a good point that way it gives us a little room to experiment with a mechanical firing mechanism or an electrical one. It also lets us test different reloading ideas if our gravity loaded magazine does not work and also the barrel of the firing mechanism and additional details that need to still be ironed out. Once the design is fully finalized that will be included in the budget including if we had to go over our initial estimate and by how much. The rover chassis and the H-Bridge circuits were provided to our group by the ECE department. For the power supply we decided to go with three Tenergy 9.6v 2000mAh rechargeable battery packs. One should be sufficient but we have two extras just in case. For our lab bench I got a rough estimate of two thousand four hundred and fifty dollars for the cost of the equipment. Since we are going with a ten percent rate for the rental we ended up with two hundred and forty five dollars for the lab bench. We did the same for our laptops and the total rented cost is about one hundred eighty dollars for the laptop. The 3D printing is going to be used for the base of our firing mechanism and to cover our rover up making sure that there is not too much exposed. For the cost of this we got the average cost of the filament and 3D printer and applied the ten percent formula. With this we have our total estimate for our budget that we are going to try to adhere to.