### KB4YG Hardware Request

| **Item Name/Link** | **Item Description/**  **Justification** | **Cost Per Unit** | **Number of Units** | **Total Cost** |
| --- | --- | --- | --- | --- |
| IoT Raspberry Pi networking hat (Telit LE910C4-NF):  <https://sixfab.com/product/raspberry-pi-4g-lte-modem-kit/> | This will enable the Raspberry Pi to connect to the surrounding LTE networks and to the backend servers. | $109 | 1 | $109 |
| Camera:  <https://www.amazon.com/Raspberry-Pi-NoIR-Camera-Module/dp/B01ER2SMHY/ref=asc_df_B01ER2SMHY/?tag=hyprod-20&linkCode=df0&hvadid=309776868400&hvpos=&hvnetw=g&hvrand=15164760254226884931&hvpone=&hvptwo=&hvqmt=&hvdev=c&hvdvcmdl=&hvlocint=&hvlocphy=9032979&hvtargid=pla-406302832785&psc=1> | Current camera is not sufficient for taking low-light pictures after testing. An infrared camera is required as well as it’s options for tuning shutter speed. | $41.50 | 2 | $83.00 |
| Waterproof Raspberry Pi Case:  <https://sixfab.com/product/raspberry-pi-ip54-outdoor-iot-project-enclosure/> | This case will ensure that the Raspberry Pi will remain safe from the elements. | $78.90 | 1 | $78.90 |
| Power Management Hat:  <https://sixfab.com/product/raspberry-pi-power-management-ups-hat/>  (We also need the Panasonic NCR 18650B  battery on that page) | Necessary for power management to preserve limited battery power by turning on and off the pi at set intervals or when a request is made. | $69.00 + $11.90 | 1 | $45.93 |
| Raspberry Pi 4  Not available at MSRP, due to chip shortage, cheapest option on eBay for around $90.  <https://www.ebay.com/sch/i.html?_from=R40&_trksid=p2380057.m570.l1313&_nkw=raspberry+pi+4&_sacat=0> | We are currently borrowing a friend's Pi, we will need a permanent solution as our prototype built completion nears and we deploy it in the field. | $90 | 2 | $180 |
| $50 SixFab Cellular Credit Reimbursement  (Will provide receipt)  <https://sixfab.com/pricing/> (Prototype Package since we have 2 hardware nodes) | As we are testing our solution, we are using Cellular data, we have already used $17 worth of data and our usage is expanding as we test our system.  $50 will be enough until our final Capstone presentation. | $50 | 1 | $50 |
| <https://voltaicsystems.com/v75/> | Battery to power the system. Current battery discharges within days due to LCD screen. | $79 | 1 |  |
| **TERM TOTAL** |  |  |  | **$546.83** |