0.0.0.1 Power Source

The MinSeg M2V3 offers two independent sources of power:

- External power via a USB port
- Internal power via an embedded battery holster

A physical switch exists on the MinSeg device to alternate between the two modes of power sourcing.

External-Sourced Power (USB-Cable Connection)

Externally-sourcing power via the USB port offers a constant 5 [V], per the USB standard; however, the cable must be consistently connected to the robot body during use.

Internal-Sourced Power (Battery Pack)

As an alternative to externally-sourced power, power may be sourced from a battery holster embedded within the MinSeg. The battery holster permits the installation of 6 AA-sized batteries.

A typical Alkaline AA-sized battery carries 1.5 [V] at maximum charge. During use, this voltage will rapidly diminish to ~1.25 [V], and more slowly diminish from then on to ~1.00 [V] before rapidly becoming completely discharged, as depicted in Figure 0.1.

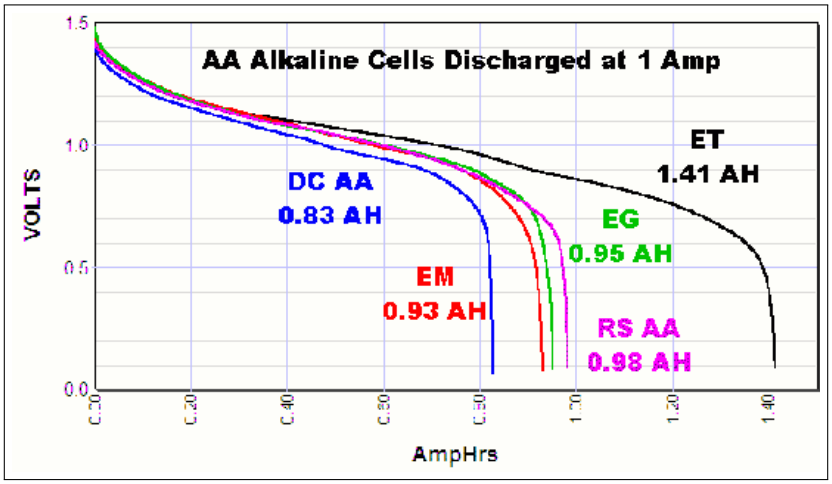

Figure 0.1: [Selection of Compatible HW & SW]: AA-Battery Voltage During Constant Discharge [1]

To use the battery holster as a power source, all six AA batteries must be installed. The batteries are connected in series and therefore cumulatively offer up to 9.00 [V] when at full charge. During typical operation, the batteries will more likely offer a reduced voltage, ~7.50 [V].

Therefore, sourcing power from the battery holster offers consistently greater voltage than external USB-connected sources, (*so long as the batteries are not completely discharged*), and additionally precludes the use of any wiring which could obstruct testing and operation.