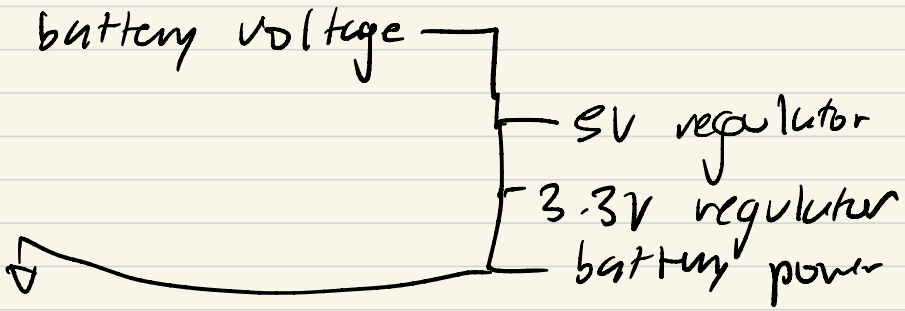

1V reference

LM217 at 1.7V series 1N418 diode ≈ 1.0V

$V_o = V_{REF}\left(1 + \frac{R_2}{R_1}\right)$ $\quad x = \frac{R_2}{R_1}$ $\quad 0.36 = \frac{R_2}{R_1}$ $\quad R_1 = 10k$

$1.7 = 1.25(1 + x)$

$1.36 = 1 + x$

$0.36 = x$

$R_2 = 360\Omega$ – 3362P-1-103LF

$R_1 = 1k\Omega$

lm217T @ LCSL Electronics

1n418 diode @ motor

3.3V ref

10nF cap = KEMET C430C106K3RSTA

100nF caps: Vishay K104K15X7RF5UL2

LD1117V33

5V ref

100nF caps: Vishay K104K15X7RF5UL2

LM7805

comparator

LM393P

IN4148 diodes

SN74LVC1G32IDCKREP OR Gate

Need: 5V and GND for Busys — comparator for busys

5V and GND for servo

3.3V and GND for phototransistors

battery and GND for actuator

3.3V and GND for IR