

Table S1 Formulations for gypsy moth lab diet with varying quantities of protein. High protein diet is equivalent to the standard gypsy moth lab diet first described in Doane and McManus (1981). Protein content was modified by removing protein components (wheat germ and casein) and adding equal volumes of cellulose to maintain consistent proportions of constituent ingredients by volume. Ingredient quantities that deviated from the standard recipe are in bold. Manufacturer information for each diet ingredient is included in the last column.

Ingredients	High (standard)	Medium-high	Medium-low	Low	Ingredient source
Wheat germ	120 g	120 g	100 g	60 g	Frontier Agricultural Sciences, Newark, DE, USA (Item #G1659)
Casein	25 g	10 g	0 g	0 g	Frontier Agricultural Sciences, Newark, DE, USA (Item #1100)
Wesson salt mix (no ferric phosphate)	8 g	8 g	8 g	8 g	LabDiet, St Louis, MO, USA (Item #5S92)
Sorbic acid	2 g	2 g	2 g	2 g	Frontier Agricultural Sciences, Newark, DE, USA (Item #6967)
Methyl paraben	1 g	1 g	1 g	1 g	Frontier Agricultural Sciences, Newark, DE, USA (Item #7685)
USDA Vitamin Premix	10 g	10 g	10 g	10 g	Frontier Agricultural Sciences, Newark, DE, USA (Item #6265)
Ferric citrate	0.1 g	0.1 g	0.1 g	0.1 g	Sigma-Aldrich Corp., St Louis, MO, USA (Item #F3388-250G)
Cellulose	0 g	10 g	40 g	80 g	Southland Products Inc., Lake Village, AR, USA (special order)
Agar	15 g	15 g	15 g	15 g	Frontier Agricultural Sciences, Newark, DE Item #7060
Water	800 ml	800 ml	800 ml	800 ml	

Figure S1 Microcontroller schematic.

