

Materials List for:

A Precise and Autonomous System for the Detection of Insect Emergence Patterns

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Materials

Name	Company	Catalog Number	Comments
PLA printer filament	www.lulzbot.com	various	Catalog number varies by color
0.5 mL microcentrifuge tubes	www.daigger.com	EF4254C	
4.5 mm size "bb" metal pellets	www.amazon.com	B00419C11A	Daisy 4.5 mm metal size bb pellets
6.0 mm plastic "softair" pellets	www.amazon.com	B003QNELYE	Crosman 6 mm airsoft pellets
Plastic corrugated sheet	www.lowes.com	345710	Corrugated plastic sheet
Infrared emitter/detector pair	www.amazon.com	B00XPSIT3O	5 mm diameter, 940 nm wavelength
120 ohm resistors	www.amazon.com	B01MSZK8DV	120 ohm, 1/4 watt
22 GA hookup wire	www.adafruit.com	1311	
RJ45 jacks	www.sparkfun.com	PRT-00643	
Custom PCB board	www.pcbexpress.com	n/a	Can be printed from files included in the supplemental data
Arduino Nano v 3.0	www.roboshop.com	RB-Gra-01	
SD card module	www.amazon.com	DFR0071	DFRobot SD card module
Real Time Clock module	www.adafruit.com	264	DS1307 real time clock breakout board
Temperature/humidity sensor	www.tinyosshop.com	G4F4494F29ED05	DHT11 temperature/humidity sensor on breakout board
470k ohm resistors	www.amazon.com	B00EV2R39Y	
Female headers	www.adafruit.com	598	Break off to desired length
Male headers	www.adafruit.com	392	Break off to desired length
Ribbon wire	www.amazon.com	B00X77964O	10 wire ribbon wire with connectors
LCD screen	www.adafruit.com	198	
Cat6 cable	www.amazon.com	B00N2VISLW	
SD card	www.amazon.com	B00E9W1URM	