



CubeSatSim Kit Instructions



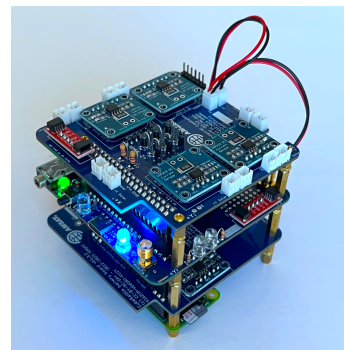
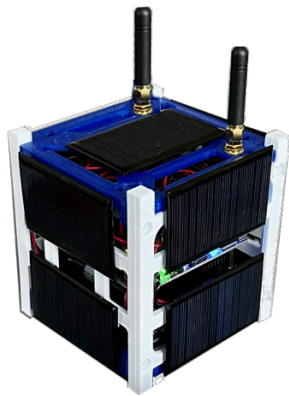
This kit allows you to build a CubeSat Simulator with minimal soldering and some assembly.

Kit instructions: <https://CubeSatSim.org/kit-beta>

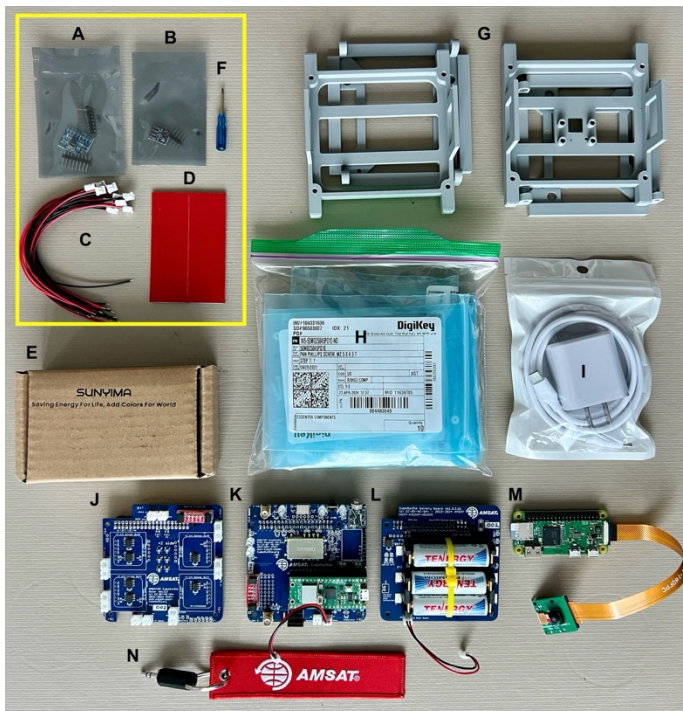
Discussion Forum on CubeSatSim on GitHub:
<https://github.com/alanjohnston/CubeSatSim/discussions>

Operating Quick Start Guide: <https://cubesatsim.org/qsg-beta>

Quick Start Guide video: <https://cubesatsim.org/qsg-videos-beta>



Kit contents



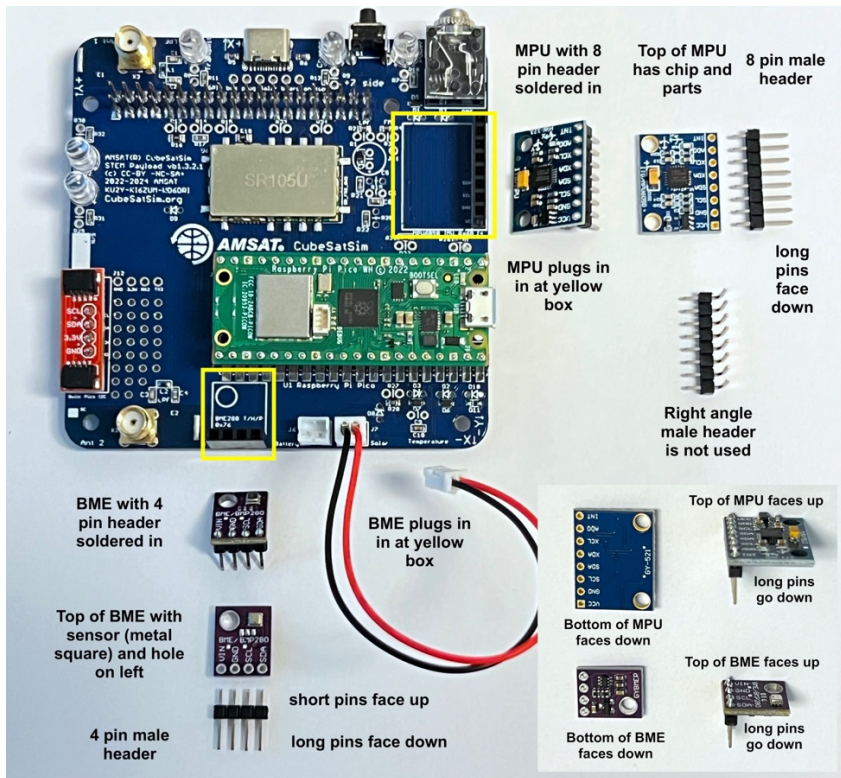
- A: MPU6050 IMU/gyro blue sensor and 8 pin male header (the right angle pin header is not used) in antistatic bag
- B: BME280 Pressure, temperature, altitude, and humidity purple sensor and 4 pin male header in antistatic bag
- C: JST wires to be soldered onto the solar panels (10x)
- D: Double stick tape for attaching solar panels to the frame
- E: Solar panels (10x)
- F: Small Phillips screw driver for frame hardware
- G: Frame, 4 parts: top/bottom (2x), side, and side with camera
- H: Digikey parts containing standoffs, nylon screws and nuts, SMA coax and antennas, etc (see below for list)
- I: USB-C cable and power plug
- J: Fully assembled Solar board
- K: Fully assembled STEM Payload board with fully programmed Raspberry Pi Pico W plugged in and JST jumper
- L: Fully assembled Battery board with JST jumper
- M: Raspberry Pi Zero WH with programmed micro SD card plugged in and Pi Camera
- N: AMSAT Remove Before Flight plug for RBF switch

Note: Parts A, B, C, D, and F are in a zip lock bag.

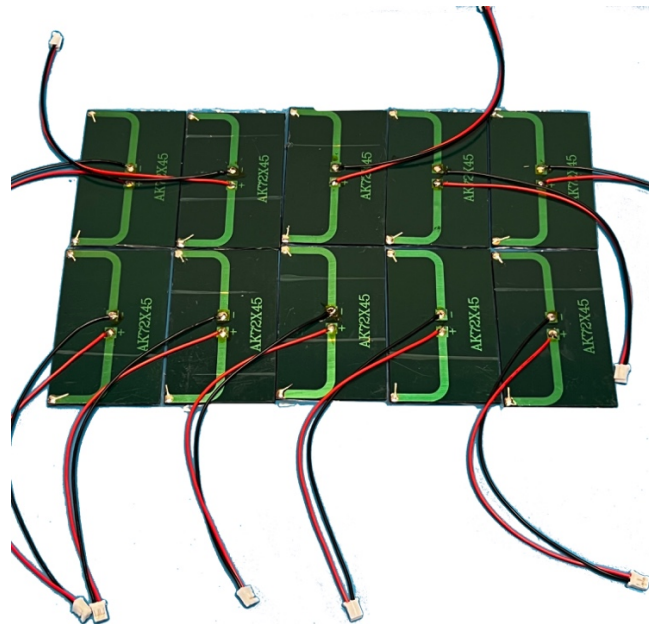
Here are the Digikey parts (H):

<input type="checkbox"/>	1	M2.5 nylon screws for frame	<input type="checkbox"/>	8
<input type="checkbox"/>	2	M2.5 nylon nuts for frame	<input type="checkbox"/>	8
<input type="checkbox"/>	3	M2 screws for mounting camera	<input type="checkbox"/>	4
<input type="checkbox"/>	4	M2 nuts for mounting camera	<input type="checkbox"/>	4
<input type="checkbox"/>	5	GPIO 20x2 female stacking header extra long	<input type="checkbox"/>	2
<input type="checkbox"/>	6	M2.5 11mm standoff	<input type="checkbox"/>	2
<input type="checkbox"/>	7	M2.5 23+6mm standoff	<input type="checkbox"/>	8
<input type="checkbox"/>	8	M2.5 6+6mm standoff	<input type="checkbox"/>	2
<input type="checkbox"/>	9	M2.5 18mm standoff	<input type="checkbox"/>	2
<input type="checkbox"/>	10	M2.5 screws	<input type="checkbox"/>	8
<input type="checkbox"/>	12	SMA 6" male to female for antenna connect	<input type="checkbox"/>	2
<input type="checkbox"/>	13	SMA 433 MHz antenna	<input type="checkbox"/>	2

Important BME and MPU sensor soldering details



Solar panel soldering



Full instructions: <https://CubeSatSim.org/kit-beta>

