

sprite

radically improving access to space

the vision:

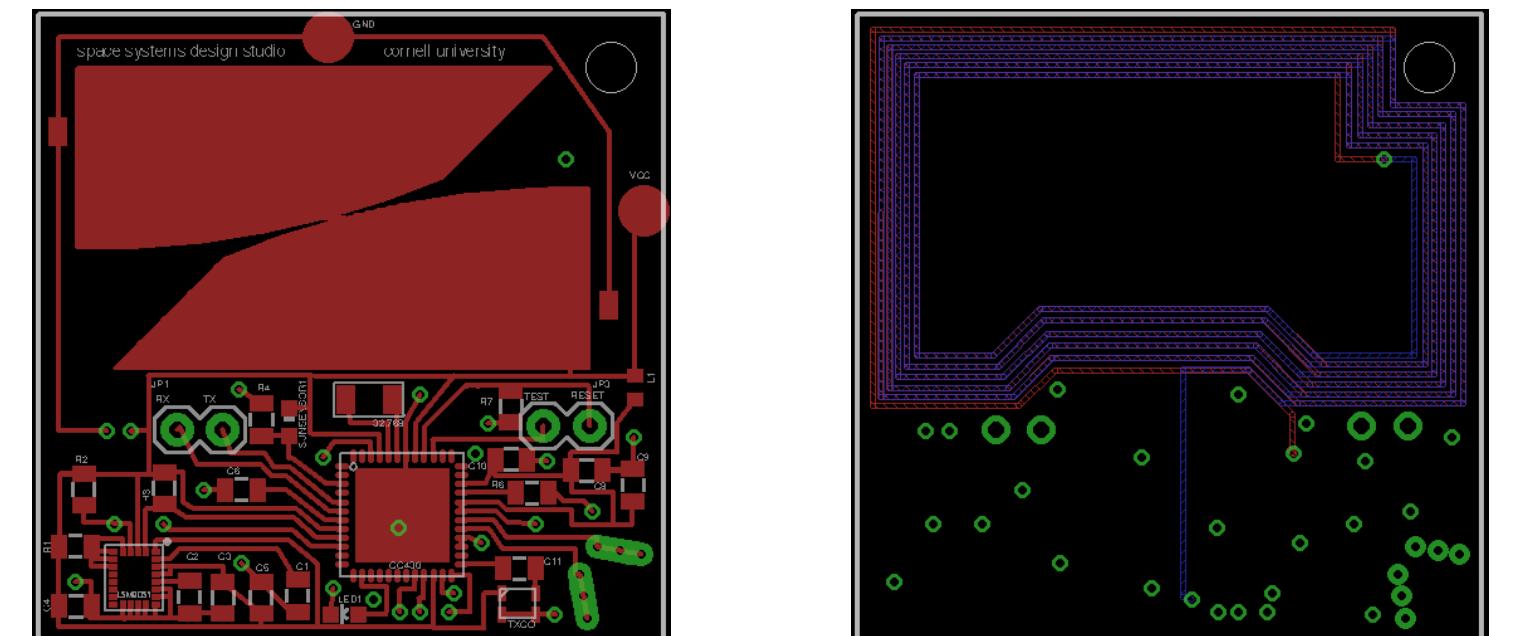
We seek to dramatically increase participation and collaboration in space by enabling any person to program and launch her own spacecraft.

the means:

Attaining dramatically increased space participation requires a spacecraft that is:

- Cheap to make
- Cheap to launch
- Easy to program
- Easy to customize

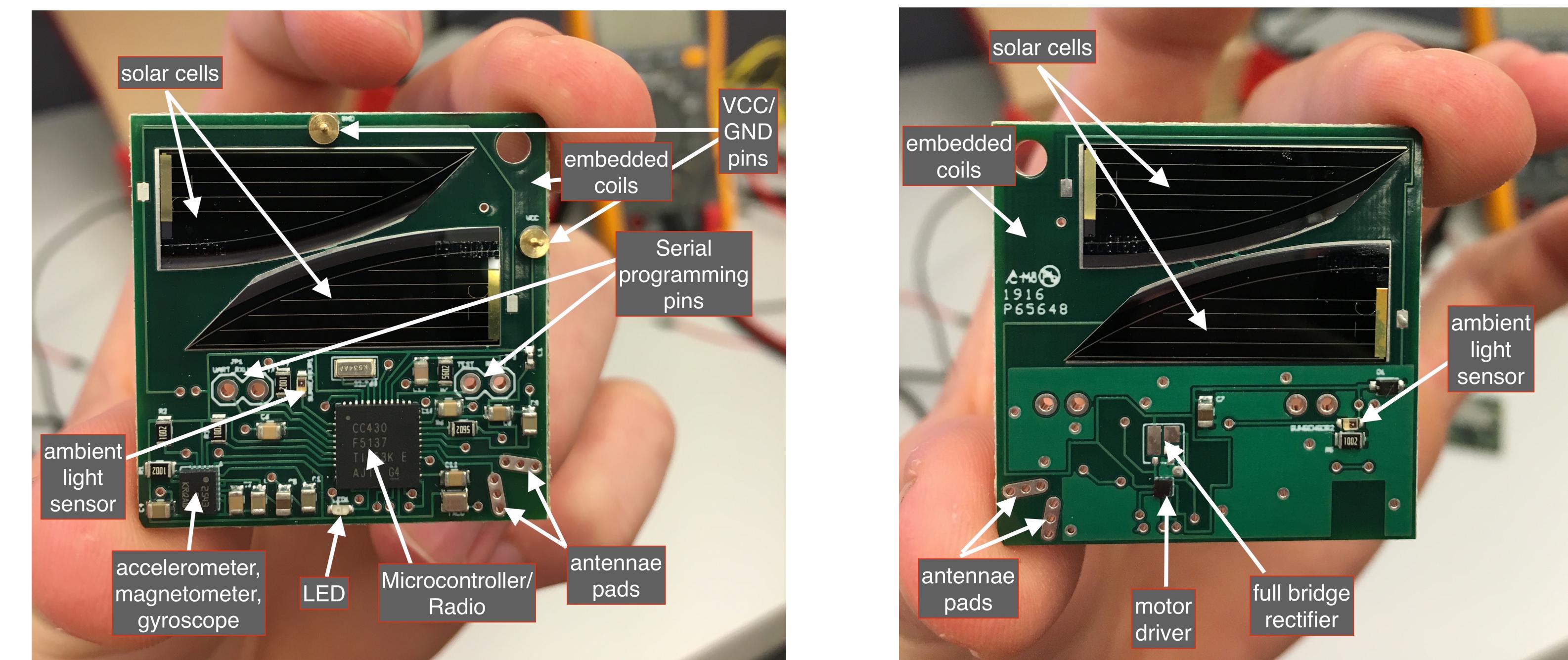
The [sprite](#) is that spacecraft. An open-sourced satellite that is programmed like an Arduino, covered with sensors, and small enough to be launched by the hundreds.



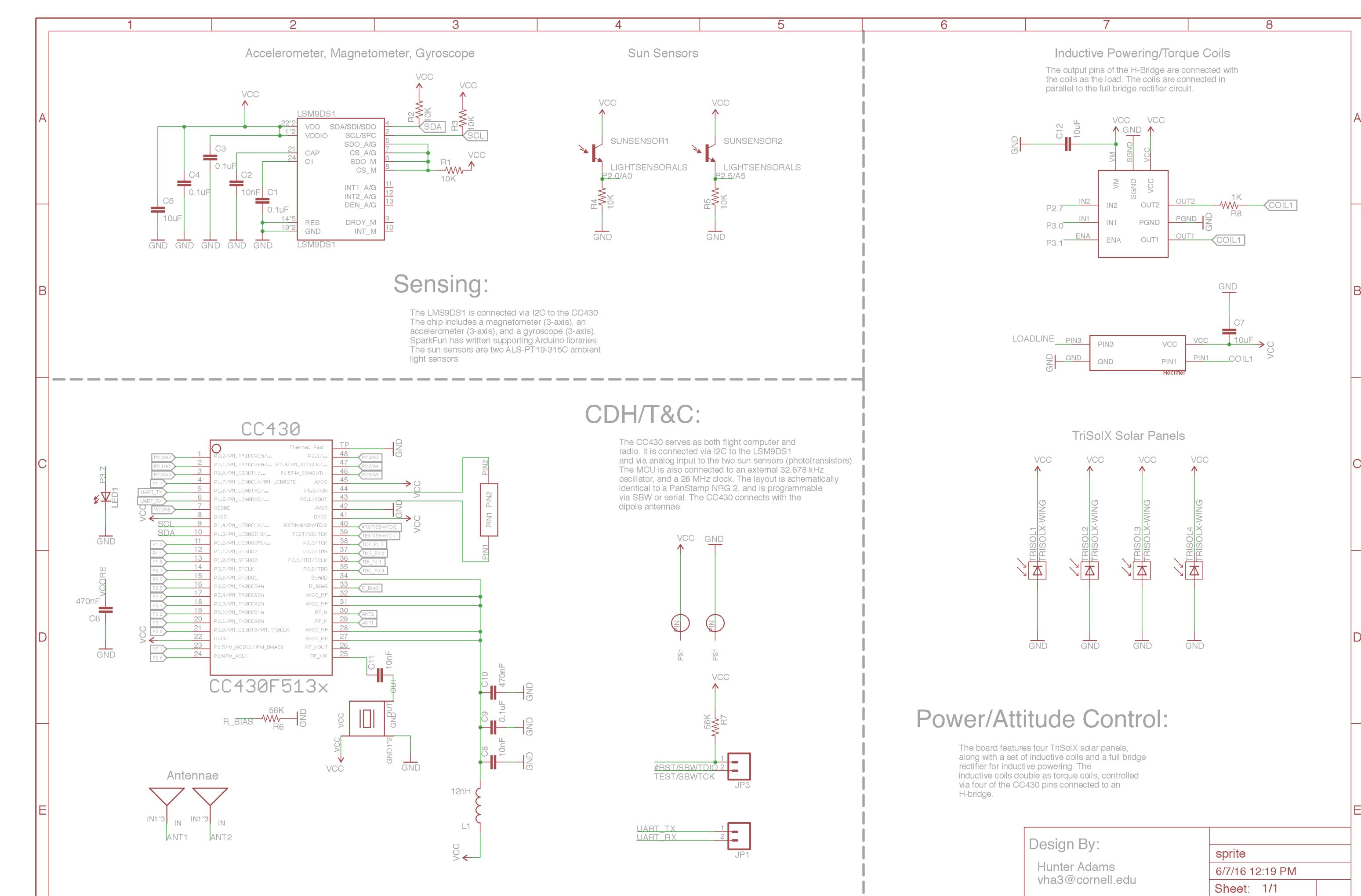
Make or use your own at:
github.com/vha3/Sprite

technical details:

The [sprite](#) is a 3.5 x 3.5 cm spacecraft that features four solar cells, two ambient light sensors, an accelerometer, magnetometer, gyroscope, torque coils, and inductive powering coils. The [sprite](#) is capable of wireless communication via its onboard CC430F5137 microcontroller and radio, and it is programmable serially from the Arduino IDE or wirelessly via RF.



Its sensors and actuators make the [sprite](#) capable of attitude determination and control, along with *in situ* measurements of its environment. Because the [sprite](#) is entirely open-sourced, it can be customized to accommodate any sensor that meets size, power, and temperature requirements.



what is possible:

Through the KickSat missions, it has been shown that one can deploy and communicate with the [sprites](#) in orbit. There's a lot that can be done with such a capability.



Characterize the magnetic field, radiation, or gravitational characteristics of a planet or other celestial body. Stochastically explore space. Test new sensors and integrated circuits. Visit a star. Beacon your initials.

It's up to you.

