Cubelets

Difficulty Rating: Easy

Overview:
Cubelets are cubes that you can combine together to make robots. The BLACK cubes are the Sense cubes, they allow the robot to detect outside stimuli such as sound, heat, and distance. Next, we have the WHITE Action cubes; these react to the stimuli detected by the Sense cubes and can spin, turn tires, make noise, produce light or display strength of a stimulus via LED lights.

Number of Students: 12-24 students. We have 6 kits total, each has 2 power cubes needed to make a robot work.

Introductory Lesson (time: 40-60 minutes):
- Introduce by asking students what makes a machine a robot? What things do robots need to function? A good thing to point out is that they will need the Power cube for whatever Cubelet creation they make
- Allow students to free play and explore. When a group discovers the Temperature Sense cube, call the attention of the class and ask them "would a cube that detects change in temperature be useful in a room temperature room?"
- Easy challenge: have students make a robot that drives doing a wheelie.
- Hard challenge: have students make a robot that can drive and steer without being touched. It needs to be able to go straight, right, and left without being touched by the operator.