Let Go of Binary

Velker, Barrett

What would happen if the computers today did not use binary (Base Two) but instead used ternary (Base Three)? Theoretically a bigger base computer could store more information in the same amount of space. For example, the number ten in decimal (the system we predominantly use) is represented in two digits (10 = ten). But the number ten in binary takes four digits to convey the same message (1010 = ten). A higher base computer should also make calculations perform quicker and more efficiently than a lower base computer given the same task. This project aims to find out if a base three computing system is a feasible alternative for future computers. A simple billiard ternary adder will be constructed out of bricks and calculations will be performed repeatedly to determine the speed, accuracy and flexibility of the simple calculator.

Awards Won: