**Lego Projects**

Time Allotted: 2 weeks

Students will work in pairs

Ages of students: 9th through 12th grade

Students will need to complete all 3 of the following activities. Grades will be given for creativity and efficiency. Additional points will be given for the winning pair on each competition.

1. Catapult

The robot must toss the red ball from the robot kit as far as possible. Distance will be measured from the robot’s arm to the place the ball first hits the ground. Score will be based on 3 tosses. (Students may modify their robot after each toss to improve results.)

1. Speed Racer

The robot must move as fast as possible. The course will be measured from one side of the classroom to the other (15 feet). Your robot will be timed. The fastest speed out of three trials will be recorded. (Students may modify their robot after each run to improve results.)

1. Maze Completion

Robots will complete a maze which is created on a piece of poster board with black electrical tape. The robots may not cross over the tape or they will be disqualified. The robot must also avoid any obstacles in their path. Red objects may be pushed out of the way. Black objects must be gone around. Robots will be timed and receive 3 attemps. The fastest speed out of three trials will be recorded. (Students may modify their robot after each run to improve results.)