**MGSE4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.**

**MGSE4.G.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.**

* Compose two-dimensional shapes or three-dimensional shapes to create a composite shape
* Recognize and draw shapes having specified attributes such as a given number of angles or a given number of equal faces
* Identify triangles, quadrilaterals, pentagons, hexagons, and cubes
* Recognize rhombuses, rectangles, and squares as examples of quadrilaterals
* Draw examples of quadrilaterals that are not rhombuses, rectangles, and squares

Tasks:

Program your robot to make a square.

Program your robot to make a rectangle.

Program your robot to make a rhombus.

Program your robot to make a pentagon.

Program your robot to make a hexagon.

Program your robot to make an acute angle.

Program your robot to make an obtuse angle.

Program your robot to make a right angle.

\*Considerations:

* Time, distance, and speed affect each other. Ex: Programming the robot to move for 3 seconds will result in a different distance than if you programmed the robot to move for 10 seconds. The speed at which you move your robot will also affect the distance traveled. So you want to set you robots speed in a consistent manner.
* Available Area… How much space do you have to work with? Programming your robot to move for 20 seconds at a medium speed will most likely send your robot on a mission which you will not have enough room for.
* Identity… How can you alter your robot’s look, so it will be easily identifiable if it gets away from you or mixed up with someone else’s robot?