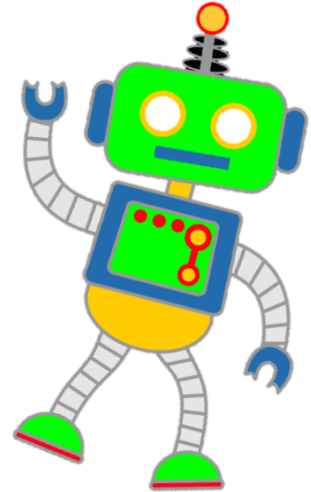# Bishop Elementary – Computer Coding Club

When: After School 3:00-4:00

Girls meet on Wednesdays & Boys meet on Thursdays

Where: STEM Room

This is a 5 week after school club that engages young engineers in a fun, hands on environment. Students will learn the basics of computer science with online curriculum as well as "unplugged" actives that include team pseudo programming, robotics, and more. We hope to see you there! Please make sure student can attend all the designated days before signing up.

Dates of first 5 weeks

Girl's Day	Boy's Day
September 19th	September 20th
September 26th	September 27th
October 3rd	October 4th
October 10th	October 11th
October 26th	October 27th

Please return signed paper, spots are limited so sign up soon!

Student's Name:_____

Phone: _____

Email: _____

Signature: _____

5 Week Plan

Week #1

Discussion: Explain how programming effects our every day-to-day life and the jobs that come with programming. (5ish min) Then explain what pseudo code is and how it relates to programming. (5ish min)

Game: Break into teams and write Pseudo Code for one of the mazes taped on the floor. After each team has finished their pseudo code they can use the Bumble Bee robot to test their program. First team finished wins! (30 min)

Week #2

Note: Will be working with peanuts will need to know if there are any allergies.

Game: Two teams write instructions on how to make a PB&J sandwich, then the instructor will follow those instructions verbatim. (20 min)

Discussion: Go over how telling a robot every little thing to do is important because without your instructions it does not understand "implied" commands. (15min)

Week #3

Programming Shapes: Using the Pro-Bot have the kids write their Pseudo Code to draw shapes. After they explain the code step by step they can use the Pro-Bot to draw the shapes on paper.

Note: Explain how to find the angles of triangles and other shape and that you need to use the OUTSIDE angle not the inside. One way to demonstrate this is draw the shape on the board, then have the students explain to you what the car should do, move forward 3cm, turn right 90', ext. Then once the car reaches an angled corner but the dry erase marker at the tip of the car then turn it. This will show the kids what angle it turned.

Week #4

Coding Your Name: using the Pro-Bot from last weeks lesson, have the students program the robot to write their name. TO eliminate the use of arcs only use the alarm letters below.

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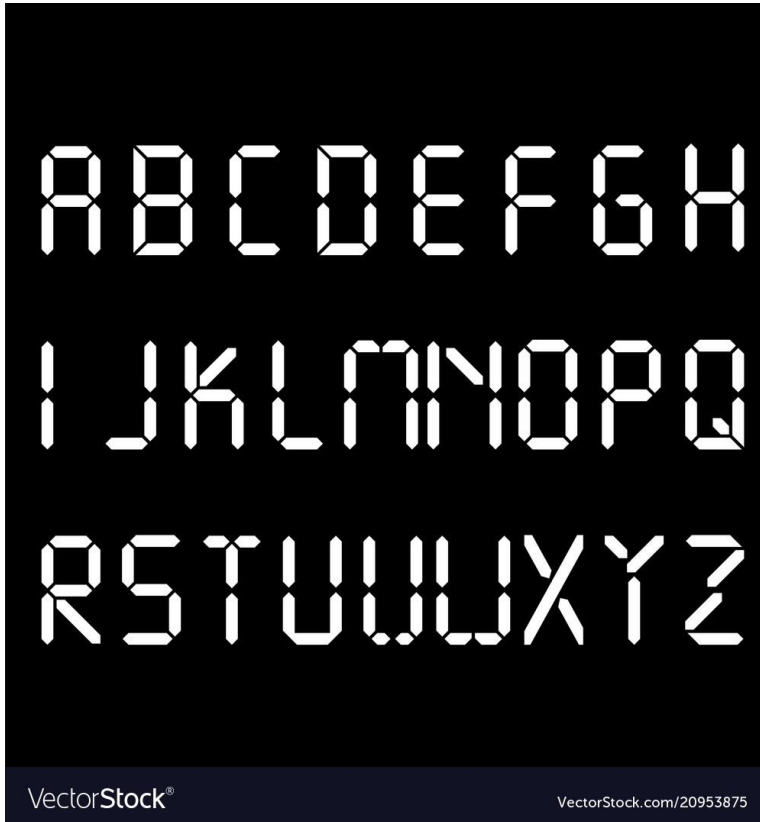
Week #5

Servo Bots: Program the servo bots to go in a square and then because it is the last day allow the kids time to play freely with servo bots. Maybe even have a race