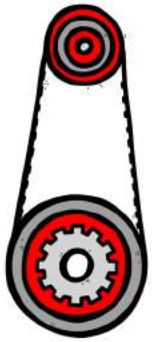
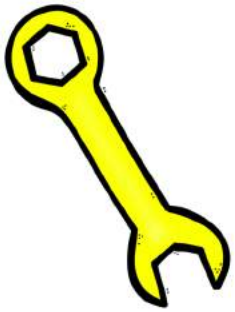
PRINTABLE

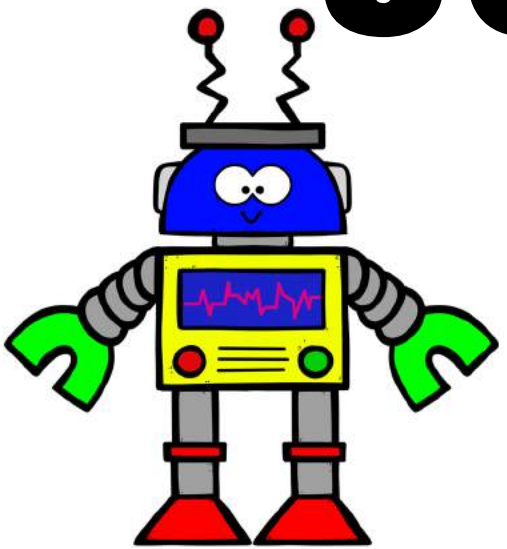


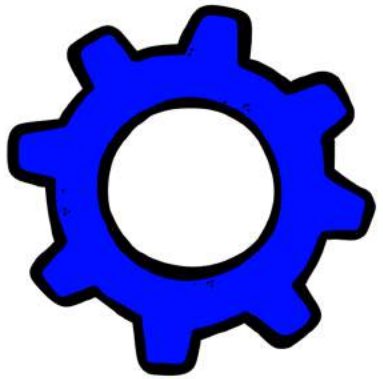


CODING & ROBOTS ALGORITHM CODING GAME

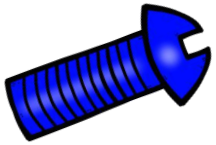
FOR KIDS

3 LEVELS OF DIFFICULTY



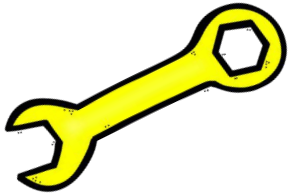


LITTLE BINS FOR LITTLE HANDS



Screen-free coding with a coding and robotics theme!

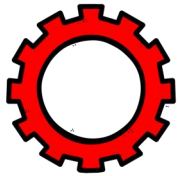
Learn about algorithms as you play games.



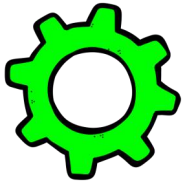
SET UP & PLAY

Print out one of the sets of grids to set up your board. Choose a blank grid with either the robot head or the robot body. Cut out the corresponding robot arms, legs, antennae, screws, gears, and arrows for your pieces.

Place the pieces on the board in some of the blank spaces (not every space). You can play where the screws and gears are obstacles to move around and/or the robot body parts need to be collected.



Your arrows are your direction cards and how you write the code to solve the puzzle. Included are left, right, and straight arrow pieces. You can use and re-use the grids over and over again and even laminate the sheets.



Use a small figure as an object to move through the board to get to the robot head or the robot body or vice versa.

Use the directional cards to create an algorithm to reach the desired object. You can change the obstacle cards to create a new board each time. Start simple using just a few and work your way up!

Easier version: Place out one directional card at a time as you move the object one square at a time with or without obstacles to go around.

Harder version: Think out the sequence of actions ahead of time and place out a string of directional cards to show your program. Run your program (move your piece) according to your directions. Check your results. Did you make it? Do you need to fix a card?

QUICK STEM

Coding is its own language. For programmers, it's like learning a new language when they write code for a new program. An algorithm is a series of actions that are strung together to solve a problem or tell something what it should do. Our printable algorithm coding game is perfect for learning how these actions string together to create a program through hands-on play!