# Program People © S CC BY-NC 2.0

# **Genesee Valley School Library System**

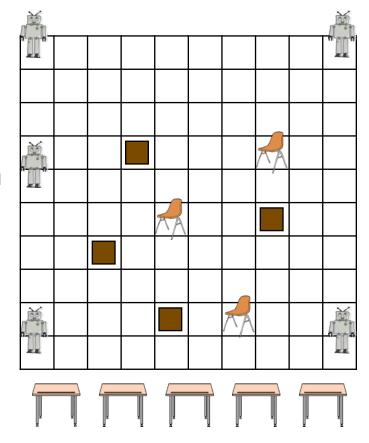
Game Library: http://gvlibraries.org/gaming

**GOAL:** Be the first team to get all four of your energy tokens (colored wooden blocks) onto the platforms setup in the room.

**OVERVIEW:** Each round, every programming team will pick 5 cards to be used to program their "robot" out on the game field. Teams will resolve one card at a time in player order. After all 5 cards are executed, the team will draw new cards to use to program. The game ends when one team has place all of their energy tokens onto the platforms or, if time runs out, whoever has the most energy tokens out.

**SETUP:** The game board will the be floor, ideally with tiles. Each square tile of the floor represents 1 space. Ideally, you want to have 10 to 15 spaces squared if possible, but make work what you can. Place the 4 cardboard platforms on four spaces randomly around in the play space. Place 2 or 3 chairs out on tiles as obstacles that the players will need to navigate around. Lastly, have a line of 4 or 5 desks (one for each group) to serve as the "command stations" along one side of the play space. The programming deck is made up of cards taken from a game removed from the library, you can also create your own deck of cards consisting of right and left turns, and single and double forward movement cards.

- Break the class into teams or about 4 kids.
- Give each team the 2 special cards (place and shoot) along with a set of 4 colored energy tokens and the foam laser block in the matching color.
- Place the programming card deck where all teams can reach them.
- Each team draws 9 programming cards.
- Determine a starting team, play will go in a clockwise order starting with them.



Program People was designed by Brian Mayer for the School Library System of the Genesee Valley BOCES. We are an educational services agency supporting 22 small, rural school districts in western New York (USA). This game design and ruleset are released under the Creative Commons Attribution, Non-Commercial 2.0 license. For more information on the Game Library, contact Dr. Christopher Harris, cgharris@gvboces.org.

#### **GAMEPLAY:**

- Select one player from each team to be the starting "robot" and have them stand in one of the corners of the play space (see setup picture).
- Give the robot player the laser cube and one energy token. If you have a 5th team, then have them start in one of squares along the edge, roughly between two players.
- The rest of the team are programmers and stand behind one of the desks that are along the edge of the play area.

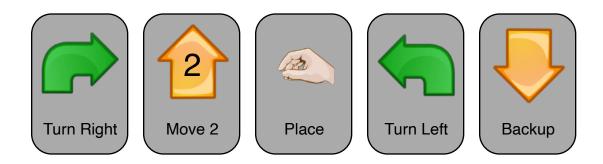
A round of play consists of three steps: Programming, Execution and Reboot.

### **Step 1: Programming**

The programming players need to select 5 cards to program their "robot" that is out on the floor. They may use the 9 program cards they have in their hands or the special cards. The programming cards will feature a movement direction and the number of spaces, or tiles, the robot will move. The smaller number in the upper right corner can be ignored, it is not used in this game.

Special Cards do one of two specific commands, either placing an energy cube on a platform if there is one on the tile directly in front of them or shooting the laser cube at a robot in front of them.

They will place those cards face up on the table in front of them in the order they want the actions to be executed, from left to right. The first card to be executed will be the left-most card, then the second left-most card...etc. Each team can do this simultaneously, giving them about 3-4 minutes to pick and place their cards. Once all the teams have programmed their robots, then move on the the execution step of the round.



In this example, the team is planning to have the robot turn right, move forward two spaces, place an energy cube, then turn left and backup one space.

## Step 2: Execution

The starting team announces the card that was placed in the first spot and the robot executes that command if possible. The next team doing down the line does the same, repeating until every team has attempted to execute the card that was programmed into the first slot. Repeat this process for the rest of the cards until each team has attempted to use all of the cards that they can. Then move on the Stage 3 - Reboot.

#### Cards in Action:

**Move forward or back up**: robots will move from one square on the floor to the next, either forward or backward. If another robot or obstacle is in the way, the robot can not execute the command and will not move.

**Turns:** robots stay in the spot they are on and either turn 90 or 180 degrees depending on the card played.

**Place:** the robot attempts to place a token directly on a cardboard platform that is on the tile front of them. Robots can not lean forward to reach a tile farther out. If a platform is on the tile directly in front of the robot, the token is placed on the platform and the robot immediately returns to the team. *They will not resolve the rest of the cards they have programmed.* If there is not a platform on the tile directly in front of the robot, they can not execute the command and they hold on to the energy token. *If there are still cards left in their program, they will continue to execute them.* 

# IMPORTANT: teams can only have one energy token on each platform, so they must visit all four platforms.

**Shoot:** the robot, keeping it's elbows to it's side, tosses the laser cube directly in front of it hopefully hitting another robot. The robot can only attempt to hit a robot that is on one of the tiles directly in front of the robot. If the robot is one row over, they can not be shot.

If another robot is hit, the robot shuts down for repairs for the rest of the round. The damaged robot's team removes any remaining cards that have been programmed for the round as they will not be executed. The damaged robot will be able to start moving the next round. The laser cube, regardless of it hits another player, remains on the ground. Any robot from the team that threw that cube can move to the spot and pick it up to be used again. If the cube goes out of the play area, the team's laser has malfunctioned and is down for the rest of the game.

### Step 3: Reboot

After all teams have completed running their programs, they get ready for the next round. Any programming cards that were used are collected and put into a discard pile. Any special cards are held onto and can be used again in the upcoming round. The teams are dealt out new programming cards, adding them to ones they haven't yet used, so they once again have 9 programming cards. If the deck of programming cards runs out, reshuffle the previously discarded ones and use them. Each group then picks a new team member to replace the current robot. If the robot is on a tile in the playing space, the new robot will go and stand on the space. If the robot is back with the team because an energy token was successfully place this round, the new robot will start in the corner that the team started the game in.

Then a new round begins.

#### Winning the Game:

The game ends immediately if one team successfully places all four of their energy cubes onto the platforms in the play area. If the group runs out of time before that happens, then the team who placed the most energy cubes out is the winner. If there is a tie, then the team that still has their laser cube breaks that tie. If there is still a tie, they share the victory.

