



The Path To Mastery

Learn the art and science of building robots

Levels

There are 7 squares on The Path To Mastery, one for each level. When a player reaches a square they have completed all the prescribed projects to **Level Up**. Completing a level requires a minimum amount of lab time, a minimum number of **WizChips**, and a minimum number of projects to complete. The player remains at the level until all requirements have been met. The player uses the **Wonder Wheel** for project selection throughout. When a player is ready to move up they must take and pass a **WizQuiz**. In order to pass the student must get at least 3 out of 5 correct answers. When players **Level Up**, they receive a **Wizband**. They are then allowed to move to the next level.

Steps

There are 60 numbered steps on the path. Each step is one of the following project types:



Skill Drill. A skill drill is set up as a tutorial to instruct players in a new set of skills and have them apply them with examples. Skills are denoted by knowledge nuggets in 4 categories: Structures, Mechanisms, Programming and Imagination.



Contraption. A contraption is an open-ended and highly creative project designed to stretch the imagination of players.



Challenge. A challenge is a technical project designed to exercise the inventive minds of players and the skills they have acquired.



Game. A game is a multiplayer, multibot project where teams work in competition or collaboration towards some goal.

Player Choice

All skill drills are mandatory. However, there are a few ways players may exercise choice in project selection:

1. Instead of doing the prescribed project on the step, or at any stage of using the Wonder Wheel, players may buy the option to build whatever they want but they must pay **3 WizChips** per team member.
2. Players may choose to try again for either spinning the Wonder Wheel or choosing a card. This option costs **1 WizChip** per team member.

Wonder Wheel

The Wonder Wheel is used to choose projects.

- Contraption** - choose from the Contraption Cards.
- Challenge** - choose from the Challenge Cards.
- Mad Lib** - choose an action card and an object card.
- Theme** - choose a theme card. The robot challenge is inspired by this theme.
- Mentor's Choice** - the mentor can direct the player to select an option.
- Player's Choice** - the players can build whatever they wish.
- Spin Again** - the player must spin again.

Partnering

Good partnerships are essential for happiness and success in the lab. The best practices for partnering are:

1. Balance levels - partners should be at a similar skill and grade level.
2. Monitor for dominance, and break up if needed.
3. Use pairs wherever possible.
4. Accommodate friendships.
5. Mix things up to encourage new collaboration.

A few simple rules apply:

1. All players on a team **MUST** be either on a skill drill, or not on a skill drill, at one time.
2. Players on a skill drill can **ONLY** partner with other players on that same skill drill, or do the drill on their own, or in a larger group.
3. Any players not on a skill drill may be partnered.

Lab Flow

The Lab is intended to be a free and fun learning environment. To create and sustain this environment we observe the Three Laws that must be obeyed, and the Three Strikes rule that must be calmly and consistently applied. Mentors reward EPIC behavior with WizChips. All completed projects must be captured on video. Leveling Up should be celebrated!

Three Laws

- First Law** - Never harm yourself or anyone else.
- Second Law** - Always keep equipment safe unless doing so breaks the First Law.
- Third Law** - Always do as lab staff ask unless doing so violates the First or Second Law.

Three Strikes

- First Strike** - comes with a first incident. The player gets a warning. There are no immediate penalties applied.
- Second Strike** - comes with a second incident. The player gets a second warning and is fined 1 WizChip.
- Third Strike** - comes with a third incident. The player is fined 2 additional WizChips and is sent to the Sorting Station for a specific period of time.

Mentor Discretion

The mentor always has discretion. There are a number of specific areas of discretion:

1. Determining when to give a warning. But once given, the enforcement rules must apply.
2. Determining how long to send a player to the Sorting Station.
3. Vetoing choices made by players either to buy their way to a Freebuild, or because the student has just done a project that is too similar, or the mentor judges it is not a good fit for the lab at that time.
4. If a veto is applied, the players either choose again for whatever stage of selection they are at, or they are simply denied the free build option and force to accept the prescription of the Game.
5. Determining when misbehavior merits escalation to parents.
6. Assignment of partnerships.
7. Teleportation - determining when to do it, if at all, and where to place players.

