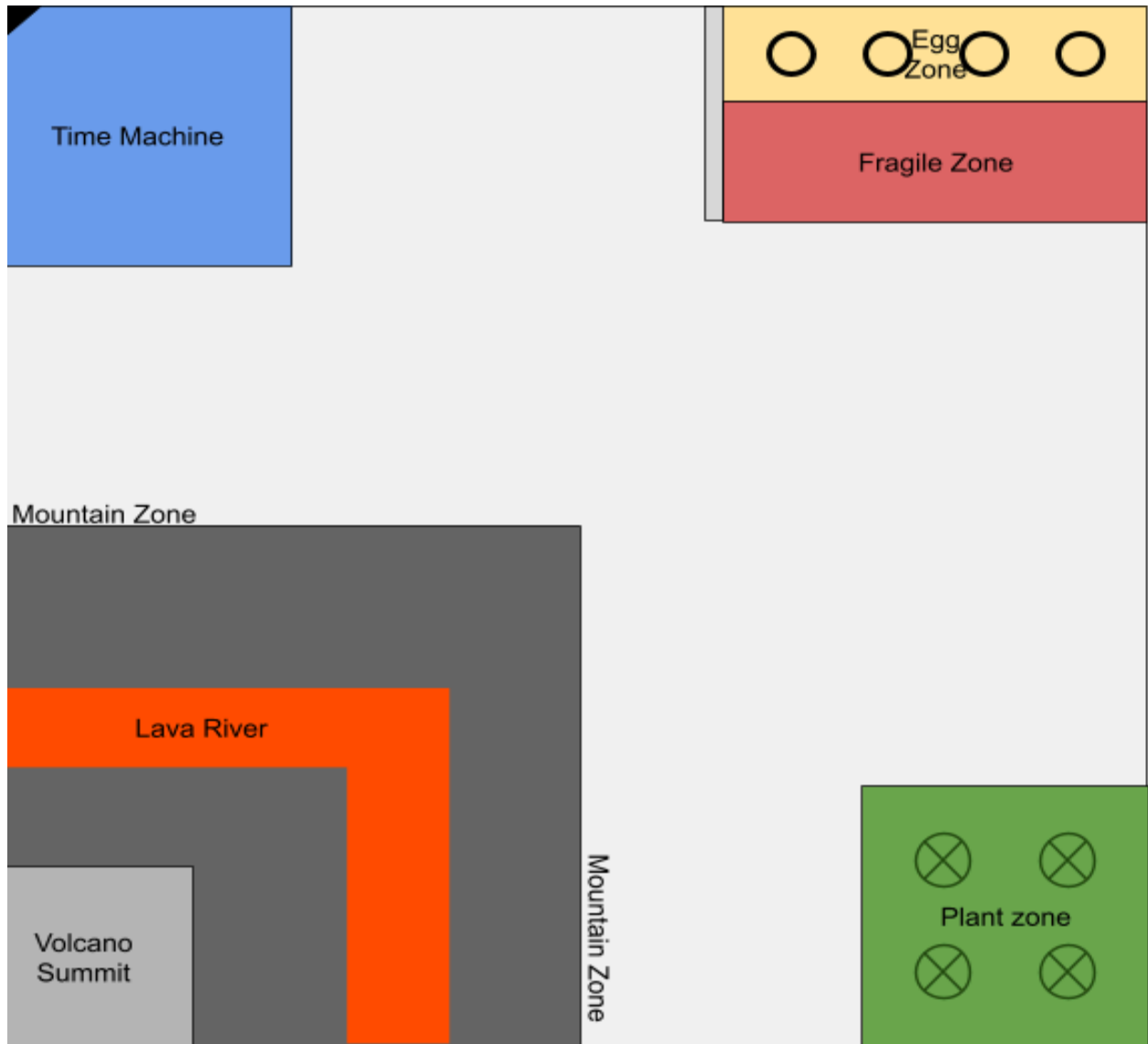




Megasaurus Game Manual



Somerville Robotics League



Welcome to the Cretaceous Period, dinosaurs roam the Earth, and humans won't arrive for nearly 65 million years. You're here to save the dinosaurs from the meteor that is shooting through space towards earth. Using your team's robot you must collect dino eggs, and prehistoric plants to bring back to the present! There's just one problem! The time machine was supposed to take your robot back years before the Dinosaurs went extinct, but due to a malfunction, you only have 2 1/2 minutes!

The Game Field

The game board is made up of four main locations: the Time Machine, Egg Nest, Plant Zone, and The Mountain, each in one corner of the board. It is a 4'x4' square plywood board with walls surrounding the playing field so no robots fall off.

Time Machine:

The Time Machine is the corner of the board that robots start in, they must start fully contained in the Time Machine, though they can start in any orientation. It is the corner of the board marked in blue on the field diagram, the Time Machine is 12"x12". A distinct blue line of tape around this corner separates from the field. In the corner alongside the field wall, there is a chute for depositing game pieces. Robots that return to the time machine at the end of the match receive a bonus of 3 points.

Egg Nest:

The Egg Nest is the corner directly opposite the mountain. It is separated from the field on one side with the fragile zone, and on the other side, with a short 4" high wall. The Fragile Zone is a 6" wide area spanning the entire length of the Egg Nest. The Egg Nest is a 4"x12" zone, the Fragile Zone is a 6"x12" zone. **In the Fragile Zone, no part of the robot may touch the game board in the marked zone.** If a robot touches the game board in the fragile zone, it will receive -½ points every 2 seconds it remains in the Fragile Zone (minimum -½ points, every additional 2 seconds is another deduction). Robots must avoid touching the Fragile Zone in order to obtain eggs, though eggs may roll through the fragile zone. 4 *Eggs* are kept in the nest, *Eggs* are ping-pong balls. Each *Egg* is placed on a ring to hold it in place. These *Eggs* will be replenished shortly after being scored by referees.

Plant Zone:

The Plant Zone is the corner opposite the Time Machine. The Plant Zone is 12"x12" The Plant Zone is separated from the field by lines of Green Tape and is a completely open area. In this area, there are 4 *Plants* (Small plastic model palm trees). *Plants* are scored in the chute in the Time Machine. The challenge of the *Plants* is the difficulty in transporting them to the Time Machine.

The Mountain:

The Mountain is the corner opposite the Egg Nest, the base of the mountain is 24"x24". It is a 16" long slope at an angle of ~30 degrees. At the top of the slope in the furthest corner directly opposite the Egg Nest is The Summit. The Summit of The Mountain is an 8"x8" square platform 9" above the field. The Lava River runs across The Mountain half way up its slope. The Lava River is a 2" wide hole, be careful of falling in. Robots remain on top of the Summit for 3 seconds to take a selfie in order to gain points.

Scoring Points

Matches last 2 minutes and 30 seconds, during this time robots can score points in 4 main ways: Depositing *Plants* or *Eggs* in the Time Machine, Taking Selfies, and being in the Time Machine when the meteor hits (when the match ends). **Robots and game pieces must not leave the field during a match**, except game pieces when they are scored. Depositing *Eggs* into the time machine may be repeated as many times as one likes. The *Eggs* are replaced by the referees shortly after they are scored. There are a limited number of *Plants* (4) which are **not** replaced during the match. Any dropped pieces are still in play and may still be scored later. Taking Selfies may be completed as many times as one likes, however, you must exit The Mountain zone fully before reattempting to climb and take another Selfie. In order to exit the mountain you must cross the tape line at the bottom of the mountain. Robots going back into the Time Machine may be scored one time per match, by being fully inside the Time Machine zone before and during the meteor strike.

Fragile Zone deductions are scored as deductions of $\frac{1}{2}$ point. If a robot touches the game board in the fragile zone they will receive one deduction, and every two seconds following they will receive an additional deduction. Examples: <2 seconds = -.5pts, 3 seconds = -1pts, 5 seconds = -1.5pts.

During an Elimination Match, if both robots take selfies at the same time (Both robots on separate fields have to be inside of their Summit of The Mountain for a simultaneous 3 seconds), each field gets *Plants* restored up to a maximum of 2.

Action Completed	Points
Egg deposited	1
Plant deposited	2
Selfie taken (Robots remain in The Summit for 3 seconds)	4
Robot back in time machine at the end of the game	3
Contact with the floor in the Fragile Zone	-.5

Team Format

Teams are made up of a maximum of two kits worth of pieces, limit one hub. All students on one team are from the same school. **Schools may enter multiple teams.** Teams are named with the three letter abbreviation of their school plus a number (Eg. KDY-1, AFA-2, HLY-3, KDY-4, WSN-5, ESC-6, WHC-3).

Competition Format

During a match the team's driver and the rest of the team may stand around the board in any position, however they may not touch the board. Once the match has started the robot may not be interfered with, and must complete the match. The students on the team who are not driving, may provide advice but may not touch the controls.

Qualification Matches

Each team will compete in 4 Qualification Matches. These matches are **NOT** played against another team, but solely for the purpose of acquiring the most points that the single team can in the time limit. The top 16 teams based on total points scored in the best 3 out of 4 qualification matches move on to the Elimination Matches. In case of a tie between two teams, cumulative points, the team with the most points in their fourth (uncounted) match will be selected.

Elimination Matches

Elimination Matches are played simultaneously to one other team; both teams play on their respective separate fields. The winner, and the team that advances to the next round, is the team that has scored the most points in their time limit out of the two teams. If there is a situation in which there is a tie, there will be a tie-breaker match played by the same teams under the same rules as stated before. During the Elimination matches the coop bonus is available when two robots take selfies at the same time (See "Scoring Points").

If any disrespect is observed from participants, officiators, or staff, there will be punishments served based on the severity of the disrespect.

Good luck and have fun preparing for Megasaurus!!