



The Game:

FTC BLOCK PARTYsm is played on a 12'x12' square field with approximately 1'-high walls and a soft foam mat playing surface. Two randomly selected teams are paired together as an Alliance to play one match against a second Alliance. Alliances are designated as either "Red" or "Blue."

Scoring Elements are 100, 2", 2oz. plastic blocks. These blocks are yellow and can be used by all robots. At the center of the field is an assembly that includes a center bridge, pull-up bar, and two pendulums – each with four "pendulum goal baskets." Below the pendulums are floor scoring areas. An Infrared (IR) Beacon is randomly placed under one of the four goals on each pendulum after robots are placed on the field, but before the Autonomous period starts. The field includes tape to aid robot navigation and to mark protected areas. Each Alliance also has their own flagpole in opposite corners of the field.

At the start of a match, blocks are located in the two corners at the front and back of the playing field and are distributed evenly with approximately 48 per corner at the start of the match. Each robot starts with one block which teams can pre-load onto their robot. Robots may not possess or control more than four blocks at any time. Each Alliance starts with their robots touching the outer field perimeter wall on their side of the playing field.

Matches have two distinct periods of play: a 30-second Autonomous period followed by a two-minute Driver-Controlled period, which includes a 30-second End Game.

Autonomous Period:

The Game starts with a 30-second Autonomous period where robots are operated via pre-programmed instructions only. Prior to the start of the match, an IR Beacon navigation aid is placed randomly on one of four pendulum goals. Autonomous blocks placed in the goal designated by the IR Beacon receive bonus points. Robots gain points in Autonomous by: driving to the bridge and parking partially or fully upon it, placing blocks in the floor-scoring area below the balance, or placing blocks in the pendulum goals.

Driver-Controlled Period:

During the Driver-Controlled period, teams retrieve up to four blocks at a time from one of two block zones and place them in pendulum or floor goals. Blocks may not be de-scored from the pendulum goals, but may be de-scored from the floor goals. Alliances may score blocks into their opponent's pendulum goals, except during the End Game period.

End Game:

The final 30 seconds of the Driver-Controlled period is called the End Game. In addition to placing blocks in the scoring areas, robots earn points in the End Game by: raising their Alliance flag up a flagpole, raising themselves off of the ground using the bridge pull-up bar, and ending the match with a balanced pendulum.

Autonomous Period Scoring:

Autonomous block in the IR Beacon designated goal	40 points
Autonomous block in a regular pendulum goal	20 points
Autonomous block in a floor goal	5 points
Robot completely supported by the bridge	20 points
Robot on the bridge and touching the Field floor	10 points

Driver-Controlled Scoring:

Block scored in the floor goal	1 point
Block scored in the inner pendulum goal	2 points
Block scored in the outer pendulum goal	3 points

End Game Scoring:

Raised Alliance flag high level	35 points
Raised Alliance flag low level	20 points
Robot hangs from pull-up bar	50 points
Balanced pendulum goal bonus	50% of block score

