

# Robot Uprising Track SCORING GUIDELINES 2019

In Robot Uprising obstacle track, each challenge is scored based on the level of Automation, and Speed (the faster the better). In addition, you may earn bonus points from certain extra tasks. A judge will follow each team around the track and document their performance during the run.

Feel free to test the track as you wish around the clock, except during scheduled stage program (e.g. keynotes) and dedicated maintenance checks before semifinal and final.

## LEVEL OF AUTOMATION

Each challenge is possible to solve with various approaches, from manual remote control to fancy learning algorithms. Automated solutions that do not require human interference are always rewarded the highest.

**Each occurrence of manual aid or interference with the robot will be counted.**

- Remote control
- Human interference = touching the robot

In order for the solution to be considered automated, max. number of times to give manual aid is **3**. *A robot that requires manual aid more than 3 times will be considered a manual solution, and cannot be ranked above automated solutions in obstacle in question.*

## SCORING

Each obstacle is ranked and scored separately. The score will be given on an inverted linear scale based on the team's ranking. See table for example. If an obstacle is not completed, the team will receive 0 points. This scoring principle applies to all obstacles.

**Scoring principles, in the order they control team's ranking:**

- **Priority 1:** Completion of the obstacle
- **Priority 2:** Automation, or manual aid given the least number of times
- **Priority 3:** Speed, ie. the time to complete the obstacle

An example with 43 teams = max. ranking score of **43p**

**Obstacle: N/A**

Ranking	Score	Team	Manual aid	Time	Solution type
1	43	Team A	1	1:32	Automated
2	42	Team B	3	0:59	Automated
3	41	Team C	>3	0:47	Manual
4	40	Team D	>3	1:03	Manual
...	...	...	...	..	...
43	0	Team E	-	-	No completion

**Bonus points will be added on top of the ranking score. Collecting bonus points will considerably affect the overall ranking of the team.**

## OBSTACLES

### 1 THE CACHE

*Find your way through the maze-like server room holding all the information needed to run the autonomous facility. You'll probably need to trigger maintenance mode to pass though!*

#### **Bonus points**

- Beat the maze under 20 seconds +5p

### 2 THE CALIBRATOR

*A machine used to calibrate various sensors used on Dvergar's robots. Carrying the USB payload over the Red Zone will cause it to malfunction! Find your way upstairs and utilize the drop port to avoid destroying the payload!*

#### **Bonus points**

- Simon Says (PRESS THE RIGHT COLOR) +10p  
OR
- Hard Button (YELLOW) +5p

### 3 THE MONOLITH

*A massive supercomputer that used to run the facility. Extract a data cube to proceed!*

#### **Bonus points**

- Floor is Lava! Don't drop the cube outside the target area +5p

## 4 THE ROOT

*A chamber of massive steel pillars holding up the Monolith computing grounds. Find your way through!*

### **Bonus points**

- Use a top-down camera and Computer Vision to find a way through +5p

## 5 TRI-CENTRIFUGE

*A line of massive centrifuges used to conduct material research before the incident. Watch out for broken shards of test equipment!*

### **Bonus points**

- Do not hit any walls! +5p

## 6 THE TERMINAL

*The main maintenance terminal, last used in Monolith's installation years ago. Theoretically, this should allow you to bypass the automated maintenance and facility isolation security principles, making it possible to connect to outside networks. You are not the only one who wants access!*

### **Bonus points**

- Successfully deliver USB payload (insert device) +10p
- Have the high ground! (Win a match) +5p

There are 6 slots on the platform. If you arrive among the first, you may park your robot in a vacant slot.

When the slots are full, or if you wish to do so before, you'll need to challenge one of the slot holders to a battle.

A robot that falls off the platform is defeated and will have to exit the TERMINAL.