

IDC ROBOCON 2006

“Fuji-yama Go!”

Rule Book (tentative)

Summery:

The match is basically determined by achieved point of the each team. Team can gain points by attaching the "Plaque board"-called OFUDA in Japanese- on the sloped specific zone of FUJIYAMA.

Field:

Whole the area is Width=4800mm, Length=2700mm that includes FUJIYAMA and the Ground area as shown in figure below.

FUJIYAMA is mountain-like point board which has 4 point zones - H1 zone, H2 zone, Snow zone, and the Shrine gate.

Ground area is consisted of the Plain area and the Lake area (3m x 2m, 200mm depth filled up with 200mm diameter balls).

Starting Area:

Each side of area has got 2 starting area (500mm x 500mm) in front and in back.

Lake:

3m width x 2m length of lake is filled up with 117 of 200mm diameter balls. The Golden Ofuda's are underneath of it.

Fujiyama Area:

Fujiyama is set up at an angle of 60 degrees from the ground. It has 4 point zones of "hook and loop fasteners". From the bottom one, each of it are called- H1 zone, H2 zone, Snow zone and the Shrine gate.

Ofuda -Plaque Board

Plaque board -Ofuda- has 2types. Blue Ofuda can be set on the machine up to 4, before the match starts. Also there are 9 Golden Ofuda's underneath the ball in the Lake.

Size of Ofuda is 200mm square and 20mm thickness. Both side of it has got "hook and loop

fasteners" as shown in the figure below.

Match:

2 teams fights in a match. Time limit is 90 seconds.

Score:

FUJIYAMA and the Shrine gate is divided into 2 territories for each team. Score will be gained by attaching Ofuda onto the point zones of own territory in order to following point table. Point will be double in the case of the Golden Ofuda.

	Blue Ofuda	Golden Ofuda
H1 zone	1	2
H2 zone	5	10
Snow zone	10	20
Shrine gate	-	win

Definition of “Attach”

Attaching means the statement of that Ofuda touches point zone directly or indirectly (sticking to valid Ofuda), also more than half of the area of Ofuda should be in the zone from the perpendicular point of view to Fujiyama. Moreover, while the machine touches Ofuda(s) directly or indirectly- even that are placed on the valid zone-, this cannot be taken as attaching. i.e., if the machine touches an Ofuda, the Ofuda and Ofudas which are connecting to the Ofuda are not counted as points.

Dedication:

When a team attaches the Golden Ofuda to the Shrine gate, this is called Dedication. That means the team wins unconditionally at that time. (Ofuda should be on the own side area more than the enemy side area)

Determination of win:

1. The team attaching Ofuda on the own side Shrine gate. (Dedication)
2. The team which has gained greater score at the end of game.
3. In the case of even score, the team which has greater number of Ofuda on the own side.
4. When the judge recognizes the enemy side foul.

5. In the case of that condition above does not determine the match, result of “Rock-Scissor-Paper” determines.

Foul:

If any of foul condition below is recognized by the judge, the team will be disqualified.

1. Machines must not touch the area other than the field, Fujiyama surface, side and opposite side.
2. Ground area of the enemy side is restricted.
3. Destruction of enemy machines.
4. Throwing Ofuda towards outside of the field.

Limitation:Machine:

Machines are to be manufactured only with kit that includes material and parts, excepting following-

1. Bolts, Nuts, Washers and Stick Glue that are prepared in the machine shop. However these are not allowed to be used as structural material.
2. Vinyl tape used as an electric insulator.
3. Grease
4. A purchase under the expense of 2000yen (almost \$20)
5. Unfunctional ornament

Energy:

Machines are to be operated by any of following energy.

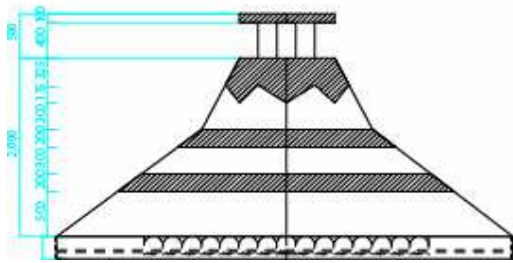
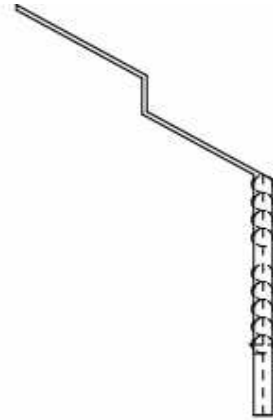
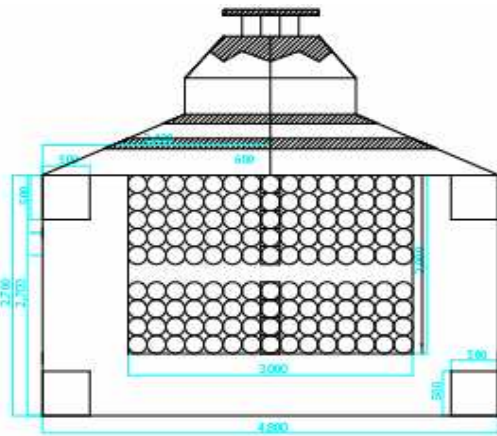
1. Gravity potential
2. The elasticity energy generated by a spring. (Rubber band is exception)
3. The electric energy and the compressed air that generated by controller unit.

Size and Weight:

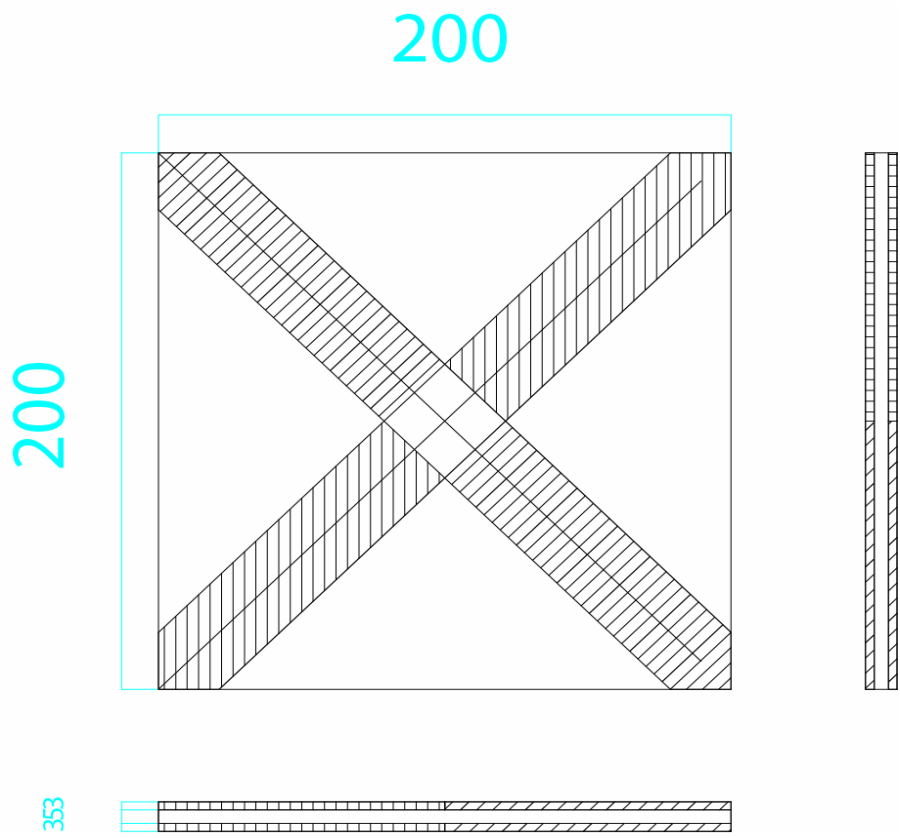
At the beginning of the game, machines must fit into 500mm cubic volume – the same size as the starting area. Also at this time, machines must be less than 5kg weight.

Details:

1. The machine that seems to have safety problems will be disqualified.
2. Machines must not throw Ofuda outside of the field.
3. Time limit of preparation for machine setup, loading a control unit, and checking, is within 90seconds. Also after the match, team must unload a control unit within 60seconds. Team will be disqualified if violating this condition.
4. Preparation of machines will be going under the control disconnected. Team can check their machine with the control activated, after both team is ready. After the match, team should remove their machine immediately.
5. Compressed air tubes are to be color-coded as a direction of exhibit.
6. A machine must be operated by one crew. Also one crew per a machine can be taken to work only on cable not to be tangle, using an official "fork". If a fork is used for any thing else than maintaining cable, team will be disqualified.
7. Team must use unique machines for the entire matches.
8. Crew must not touch machines during the match.
9. Destroying of facilities of contest, allow team disqualified.
10. Violating the contest philosophy, such as strategy that damaging enemy machines, is not acceptable. If these are recognized by a judge, team will be disqualified whole the contest.
11. Stick glue must not used for actuation.
12. Team must not mess up the field or the enemy machines by grease.
13. Chemical process of kit or Processing of recycle stuff is not allowed.
14. Win with unconsciously violating the rules can be cancelled.
15. Team must not use Field fence, field floor and something outside if the field.



Field



Ofuda