



ROBOCLENCH

TASK

- Teams have to build a remote controlled robot which can perform simple task of clenching objects. The bot has to put these objects in strategic places to complete the obstacle course.
- The bots can be wired or wireless. The wired bots should have a cable of length 2m at least so that the cables are in slack position at all times.

ARENA

- The outer dimensions of the arena are 3650mm X 3650mm.
- Dimensions of square thermocol blocks are 100mm X 100mm. There are 5 block in total.
- The first two bridges have an inclination of 30°, the last bridge has an inclination of 45 degrees..
- The standing space on the bridge is 250mm.
- The width of the track is 450mm.

GAMEPLAY

- The bot has to begin from the START point.
- The bot has to pick up the block A1, climb up the incline and put the block in the hole to complete the bridge.
- Then, the bot has to knockout the support that is elevating the second bridge to cross the second bridge.
- The bot has to pick up and place blocks A3 and A4 strategically in order to cross the third bridge.
- The bot has to pick up block A5 and place it inside the catapult (B5).
- The bot has to pick up block A6 which has a knife attached to it and start cutting the thread to release the block which will eventually hit the target. This is the end of the competition.

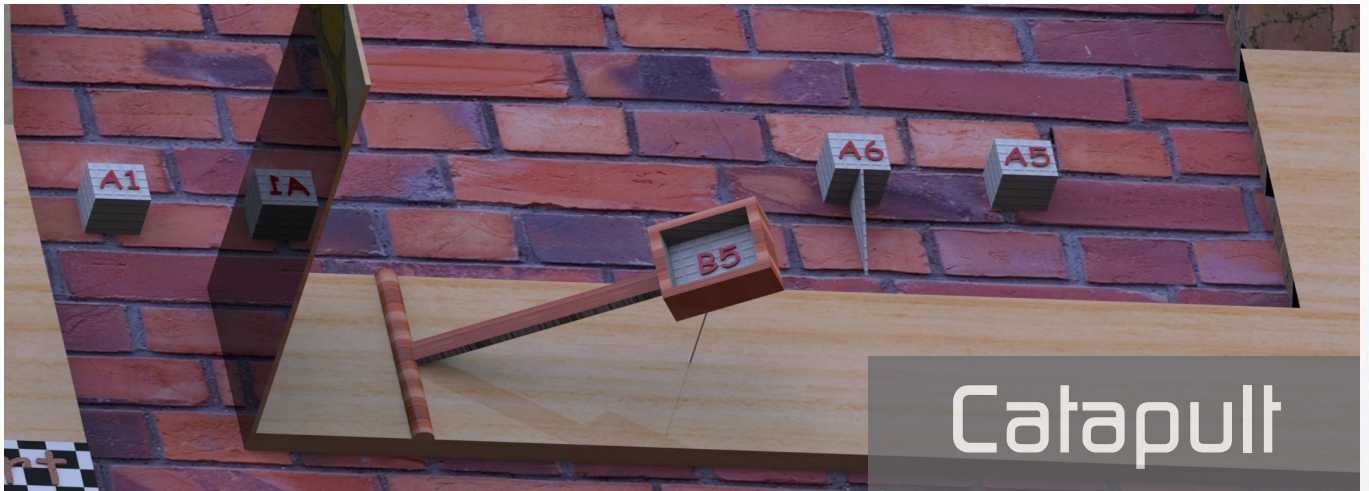
JUDGING

- 10 points for clenching block A1.
- 15 points for putting the block in the hole to complete the first bridge.
- 5 points for clearing the first bridge.
- 10 points for knocking out the support to the 2nd bridge.
- 5 points for crossing the 2nd bridge.
- 10 points for clenching each of blocks A3 and A4.
- 15 points for putting the block A3 and A4 in its place, to complete the third bridge.
- 5 points for crossing the third bridge.
- 10 points for clenching block A5.

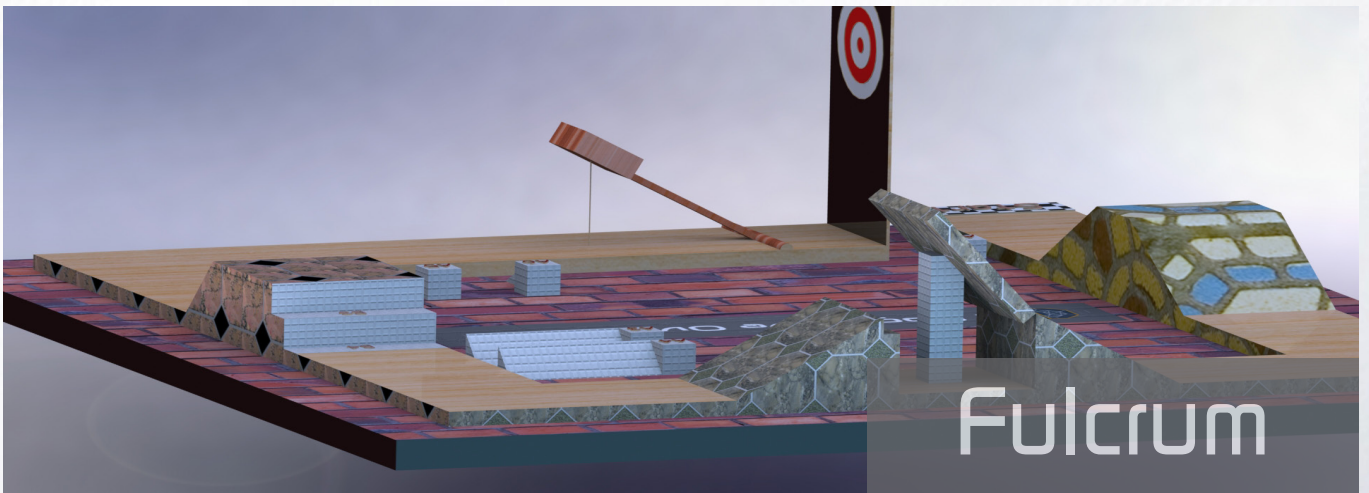
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2019
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COGNITIVE OVERDRIVE



Catapult



Fulcrum



Bridge

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Left view



Right view



Top view

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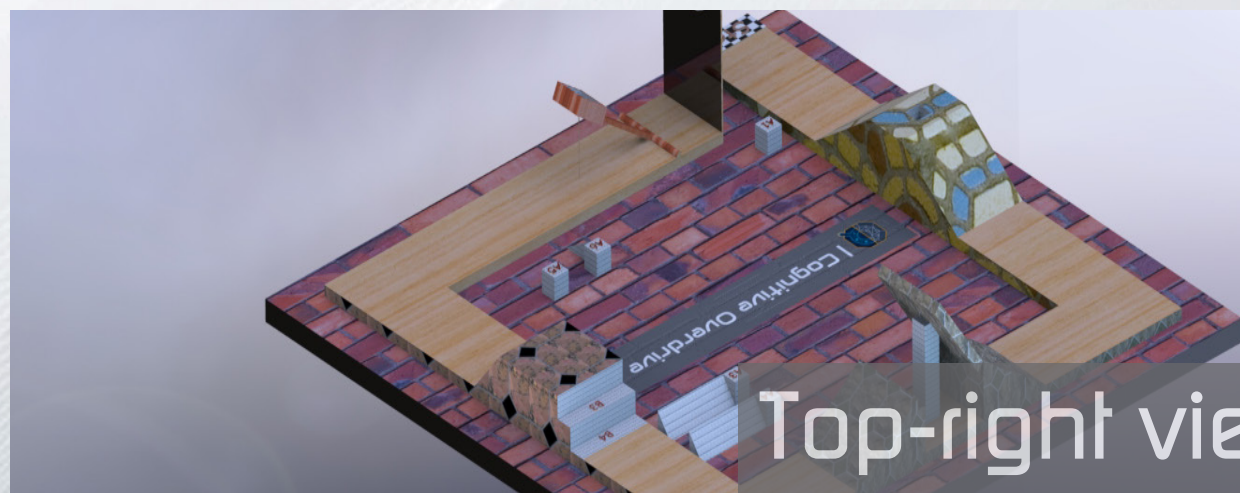
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COGNITIVE OVERDRIVE



Bottom view



Top-left view



Top-right view

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- 10 points for putting block A5 in the catapult B5.
- 10 points for clenching block A6.
- 15 points to cutting the thread to hit the target.

PENALTY

- Touching the bot/the wire attached to the bot at any time to help it clear an obstacle will lead to a penalty of 10 points.
- There will be a reset penalty of 10 points.

BOT SPECIFICATION

- The dimension of the bot should be less than or equal to 300mm X 200mm X 300mm (lx-bxh).
- Failing which the team will be disqualified from the competition. The bot can however extend its dimension once the run starts. An error of (+5%/-5%) is Permitted.
- The bot must be controlled manually.
- Teams can use both wired as well as wireless control mechanisms. In case of wired bots, the length of wire should be minimum 2 meters so that the wire remains slack at any instant of time.
- Participants are not supposed to use any readymade Lego components or readymade-gripping mechanism. However, the participants are allowed to use readymade gearassemblies.
- Only one person will be allowed to control the bot.
- Failing to meet any of the above specifications will lead to immediate disqualification.

GAME RULES

- Only one team member is allowed to handle the bot. No other team member is allowed to enter the arena.
- The bot will be liable for disqualification if it causes any kind of damage to the arena.
- The bot is not allowed to Slide the blocks against the ground except for fine adjustments in the Deposit Zone.
- Any damage done to the blocks will lead to immediate disqualification.
- In case of any disputes/discrepancies, the organizer's decision will be final and binding.
- The organizers reserve the rights to change any or all of the above rules as they deem fit.
- Change in rules, if any will be highlighted on the website and notified to the registered-teams.

CONTACT

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