



## Frequently Asked Question (FAQ) ROBOCON 2006

### SECTION A : POINT AWARDED AND “SIAP”

1. For each builder block I place on the tower, I get 1 point and if I completed the **whole** tower I get an **extra** 1 point?  
**No bonus point for completing a tower**

(For question 2-3 please refer to Figure 1)

2. **Case A**  
What will be the points scored by red team at its own tower? If robot touches one of the blocks  
**(8x1) -1 = 7 (see rule 5.4.3)**
3. **Case B**  
Will Red team gain 5x2 points, if one of its blocks touches the opponent's robot?  
**Red team = 5x1 points (see rule 5.3.2. c)**  
**Blue team = 5x2 points**

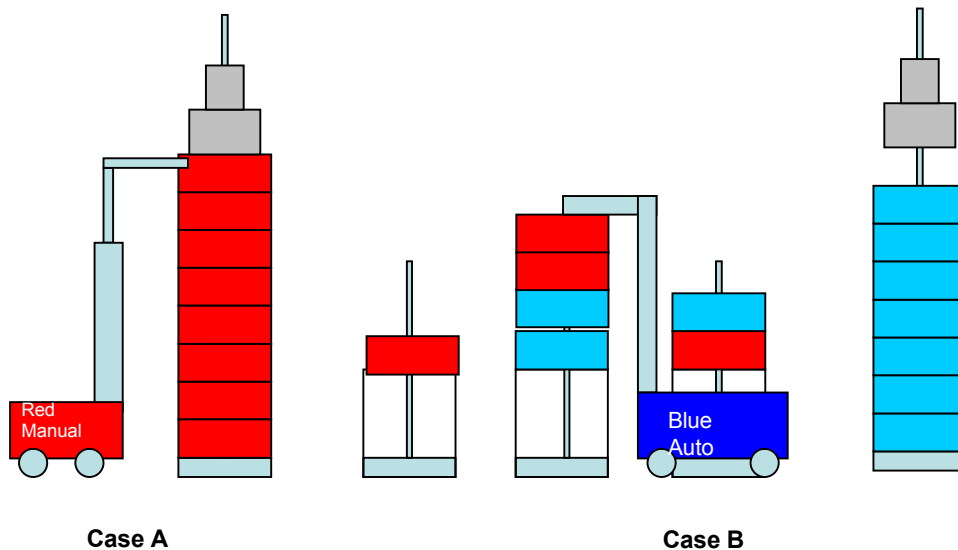


Figure 1

(For questions 4-5 please refer to Figure 2)

4. **Case C**  
What will be the points scored by red team at its own tower? If robot touches the first third block.  
**(8x1) -1 = 7 (rule 5.4.3)**



5. **Case D**  
What is the score?  
Red team = 5x1 points (see rule 5.3.3 c)  
Blue team = 5x1 points (rule 5.4.3)

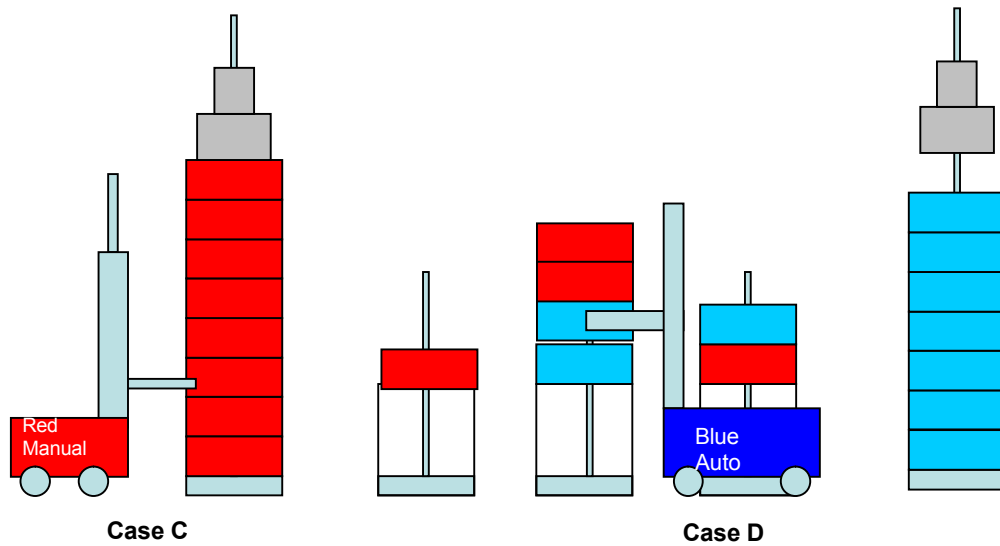


Figure 2

(For question 6 please refers to Figure 3)

6. Both red and blue robot touch part of the builder blocks. What will be the score?  
Red team = 5x1 points (rule 5.3.2 c)  
Blue team = 5x2 points

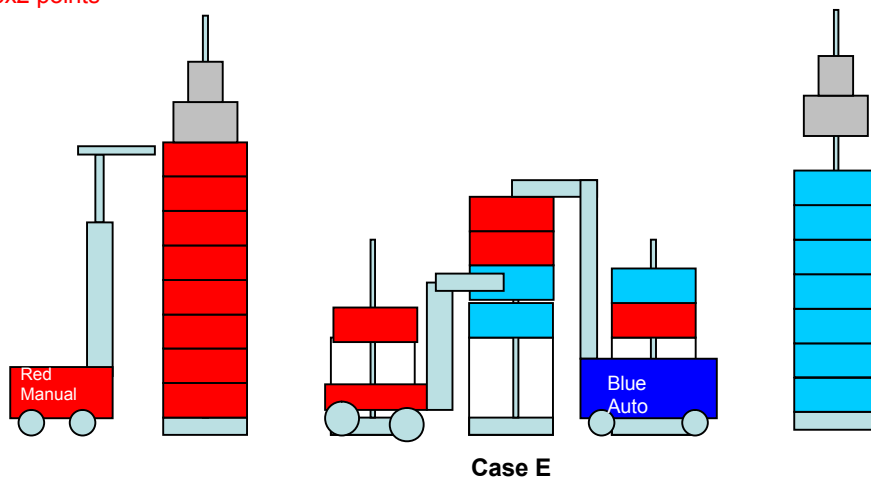


Figure 3

7. Which is the priority to claimed ownership on the 'skybridge' tower?
- Owning topmost builder block for those skybridge towers; **OR**
  - Stacked those skybridge towers with at least two (2) builder blocks.

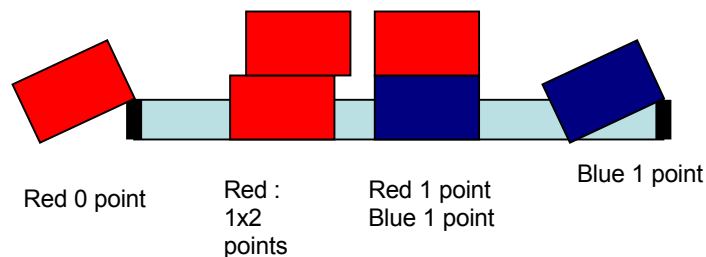


**Example:**

Let say for a particular skybridge tower, blue team Own topmost builder block for that skybridge tower and red team stack two builder blocks(below the blue team builder block)on the same tower. Who own that tower?

Claimed ownership of the tower means you must have at least one own block at the topmost. This ownership is only considered for a condition for "SIAP". In your example given,the blue team own the tower. But in terms of points, the red team scored more points then the blue team.

8. After the builder blocks are placed completely at the tower, the opponent robot moves into contact with our blocks and stays in contact with our block until the end of the game. Will this block that is still in contact with the opponent machine be count for score?  
Yes, you will still be awarded point(s) even though your opponent touch your blocks
9. If the automatic machine enter the No Entry Zone and get out from it in less than 5 seconds is the referee give -1 from the points gained and the match complete without restart the machine from the start zone or make disqualification from the match (loosing the match)?  
Yes, if your auto machine enters the No Entry Zone for less than 5 seconds, you will get -1 point. Restart can happen if your team leader calls for it. If your robot enters the No Entry Zone, and you call for a restart, please make sure you are able to remove your robot from the area in less than 15 seconds, otherwise you will be disqualified.
10. Can I put the one point scoring bin in any of the white areas or there is a special square for me and other for my opponent?  
You can place the block anywhere within the one point scoring bin in order to get a point.
11. What if my block is not fully placed in the one-point scoring bin? What if my block rests on another block in the bin?  
Points will be awarded as long as your block does not touch the outside floor of the one-point scoring bin. The block resting on another block in the bin will be given points, unless the bottom block touches the outside floor (Diagram 1).



**Diagram 1: Positions of builder block within the One Point Scoring Bin**

12. In this case (Figure 4), how many points are to be calculated for Red team?  
 No points will be awarded since the bottom block is not in contact with tower base. (refer to rule 5.4.2)

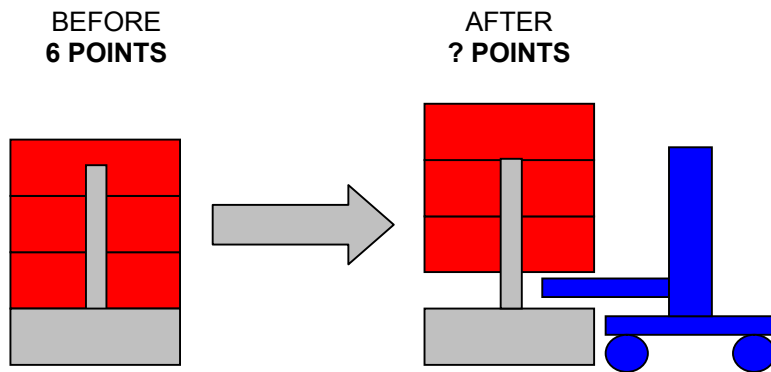


Figure 4

13. In this case (Figure 5), how many points are to be calculated for Red team?  
 The score by red team is 0 since the bottom block is not in contact with tower base. (refer to rule 5.4.2)

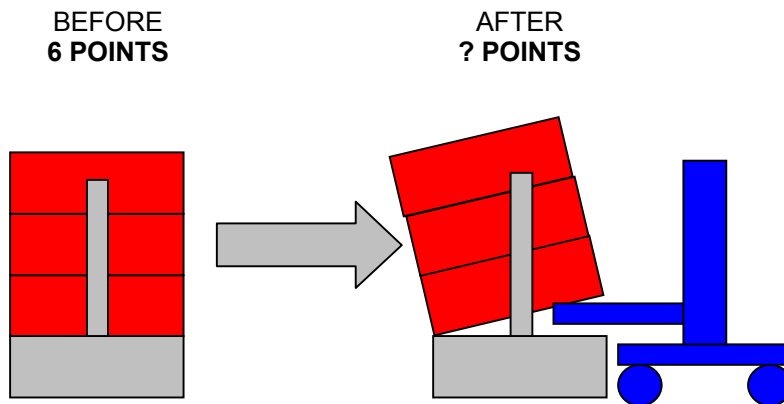


Figure 5

14. It is stated that to achieve SIAP, "a teams' machines do not touch the skybridge tower OR the Builder Blocks stacked onto it". However, it does not state that for NO SIAP, is the point award for the team if team's machines touch the skybridge tower? It only says that "No points shall be awarded if a block touches the floor or any part of own robot". That means our robot can touch the skybridge tower for NO SIAP to gain point right?  
 Yes, you are right, to achieve SIAP your robot cannot touch the tower or blocks, However point will be awarded if you don't touch own block
15. Is the red "SIAP"? (Figure 6)  
 Big YES. Please take note that for the skybridge towers, blocks are stacked on the acrylic cylinders.

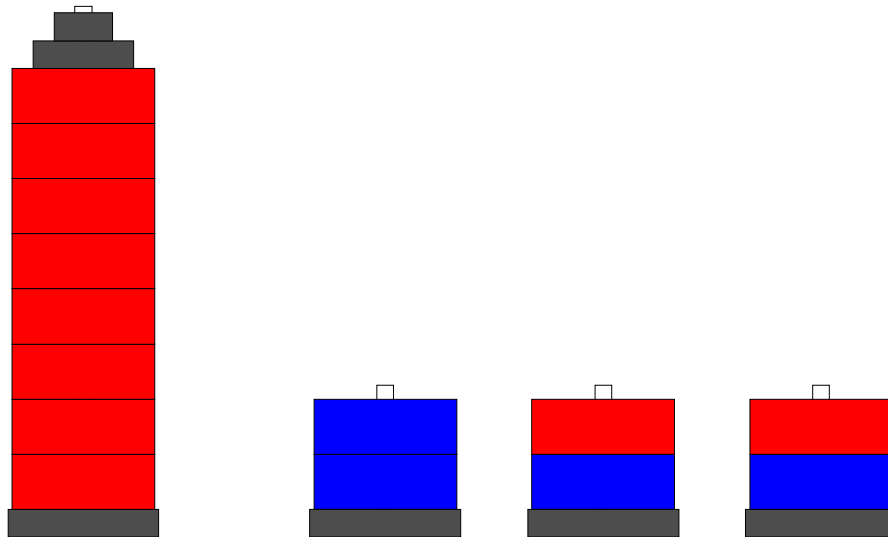


Figure 6

16. Case: Opponent auto machine place the builder block at the tower but the machine still touch the block. Our auto robot then correctly place our block on top of the opponent block (the one that is still touched by the opponent's auto robot). If the condition for potential SIAP is reached, will this be called SIAP?  
As you know one of the conditions for SIAP is that your builder block must be on top of at least one block. In the case you just described, your opponent will not get any point but yours can be considered as meeting a condition for SIAP.
17. Is it allowed (and granted point) to stack a builder block(s) on a full Skybridge Tower (containing 3 builder blocks)?  
There will be no penalties for stacking more than three (3) builder blocks on skybridge towers but only the first three (3) blocks are counted for points or SIAP
18. Refer to point 5.3.2c, only the top-most block will be counted for points regardless of the color. The 1st and 2nd builder blocks?  
The top most blocks situation is one of the conditions for achieving "SIAP". On the other hand if both teams failed to achieve "SIAP" then the winner will be decided on points scored by each team. In this case all blocks up to 3 levels will be considered for points
19. Refer to point 5.5.3, would the points at the twin tower be listed in the priority for deciding the winner?  
NO, it is decided based on this order, the middle skybridge, left/right skybridge, main tower and finally the one point scoring bin (rule 5.5.3)
20. Can we gain points if our auto machines do not touch the block but touch the skybridge?  
Yes, but you cannot achieve "SIAP".
21. When a team **deliberated breaks the rules** to have some advantages: according to the rules, they will be deducted 1 point, but the opposing team can lose. How the referees do?  
This is part of a strategy and requires a little bit of ingenuity. Therefore it is allowed
22. Can the team still archive SIAP, if the team had been deducted 1 point?  
Yes



23. May the automatic robot after building the bridge stay in its position without any movement keeping its arms touching my own team blocks?  
**Yes , you could do that. But you won't gain any point for the block you touched**
24. Case: Opponent auto machine place the builder block at the tower but the machine still touch the block. Our auto robot then correctly place our block on top of the opponent block (the one that is still touched by the opponent's auto robot). If the condition for potential SIAP is reached, will this be called SIAP?  
**As you know one of the conditions for SIAP is that your builder block must be on top of at least one block. In the case you just described, your opponent will not get any point but yours can be considered as meeting a condition for SIAP.**
25. Refer to point 5.3.2c, does it mean that the 1st 2 builder blocks will not be counted for points at all? How many builder blocks can each Skybridge Tower accommodate? Is it 3?  
**The key word here is "level" or height. For each level you could stack up to TWO builder blocks, therefore you can have a maximum of SIX blocks stacked at 3 levels. Any blocks stacked on the 4th level will not be considered. If there are two block of the same colors on the same level, only ONE is considered for point(s)**
26. **SIAP** is achieved when a team has:  
 Own topmost builder blocks of at least two blocks on any two of the 'skybridge' towers without touching the own machine.  
**QUESTION:** For example, can we put only two builder blocks in left skybridge and two builder blocks in middle sky bridge for SIAP?  
**Yes, you can achieve "SIAP" by placing two builder blocks on left and middle skybridge towers. Please make sure that you have 8 builder blocks at your main tower.**

## SECTION B : VIOLATIONS, DEDUCTION POINTS AND DISQUALIFICATION

1. **Clause 7.1**  
**Causing or attempting to cause damage to the game field, its equipment, or the opponent's machines, including the materials arrangement of the opponent's building blocks.**  
 If opponent's automatic machine pick up our topmost builder block stacked onto skybridge, and leave their own builder block instead of ours, then will they be disqualified?  
**The case you described is permitted and NOT a violation**
2. What's wrong if my robot(s) (automatic and manual robots) get into the No entry zone, disqualified or you just loose the game?  
**If any of your machines enter the No Entry Zone, One point will be deducted for every 5 seconds, if you obtain more than (-2) points, your team will be disqualified. In other words if you machine passes the No Entry zone in say less than 15 seconds, only two points will be deducted.**
3. If block that is in hands of automatic machine inter to No-Entry zone, does have this action violation? (automatic machine has block in it's hand . and when it cross side of No-Entry Zone , block inter to No-Entry Zone, so is this violation or not?)  
**Yes, it is a violation. The block held by a robot is considered as part of the robot. Manual robot is not permitted to use own block to clear its path.**
4. If the opponents push my auto robots to the No Entry Zone who break the rule here? Me or the opponent?  
**It depends whether it is intentionally or not. If your opponent's auto robot pushes your robot into the No Entry Zone, you will not be penalized. Perhaps you can ask for retry. The same goes to your opponent; if referee finds it against the act of fair play then they can be penalized. In general it is difficult to judge this situation, but in the past when collision happened, usually both teams normally asked for retry.**



5. In the rule book under the topic "**violation and deduction of points**", it is written that 1 point is deducted for every 5 seconds for each violation. Is it granted the following violations with the deduction of 1 point:
  - a) Automatic machine block the skybridge towers or opponents' automatic machines by violating and deducing own 1 point by extending over and crossing the No-Entry Zone within 5 seconds  
**Blocking your opponents or the skybridge towers with automatic robot is not a violation but extending over or crossing the No Entry Zone is.**
  - b) Automatic machine or manual machines enter into the opponent's tower zone for 5 seconds to fall opponents' builder blocks.  
**Deduction 1 point.**
  - c) Manual machine touches opponent's manual machine for 5 seconds to prevent it from building the builder blocks in the twin tower.  
**Deduction 1 point.**
  - d) Automatic machine enters directly into the manual zone and comes to the automatic zone within 5 seconds.  
**Deduction 1 point.**

**Please take note:** One point deduction will be given even if the violation committed in less than 5 seconds. For instance, if your manual robot entered the automatic zone (other than your own tower zone) three times. Say each time it took only 1 second; this would give you the total time you spent in the auto zone of 3 seconds. In this case, not the total time spent BUT number of times you enter the zone is considered. Here, your team will get -3 points and automatically you will be disqualified.
6. In the latest rule 2.2.9, it states that the automatic machine must move forward into the building site zone upon starting off. Otherwise, it is a violation.  
**Rule 2.2.9 only applicable if your strategy is to move your auto robot to the manual zone upon starting off.**
7. I wish to know if the following cases are considered violation or not:  
 Upon starting off,
  - a) An automatic machine moves forward but stops at highway zone (maybe by accident or do it on purpose, i.e. to score at one point bin)  
**It is alright.**
  - b) An automatic machine moves forward and stops at highway zone (beside the one-point scoring bin), and then extend its part to **building site zone** via one-point scoring bin.  
**It is okay if you have no intention to go to the manual zone.**
  - c) An automatic machine moves forward and stops at highway zone, then extend its part to **opponent's highway zone** via one-point scoring bin  
**It is permitted**
8. We understand that manual machine is allowed in the tower zone. Then if a manual machine touches the fence in the tower zone, will it be counted as a violation?  
**NO it is not a violation if your manual robot touches the wooden fence**
9. Whether "SIAP" is applicable on the case of fourth blocks on the skybridge towers or if both the third blocks are of one team but the opposition places its block over the three blocks in one of the tower then "SIAP" is valid or not .  
**SIAP only applicable to third blocks only. If your opponent's places another block on top of yours, it is still considering SIAP to your team. Please take note that once all conditions for SIAP have been achieved, the referee will end the game.**
10. The robots in the automatic zone throw out a build block. Then the manual robot picks it up and places it in the middle of the manual field. Because the aisle is only 1500mm wide, the block can prevent the manual robot get across and



**"2.1.8 Manual machines are not allowed to touch opponent's builder block."** .In that case, the manual may cannot score as usual. This strategy is allowed. Is it considered as violation?  
The answer to your question is YES

11. Pertaining to the following rule:  
**"2.2.12 A team's Automatic Machines are not allowed to communicate with each other in any way".**  
Are the following case consider as violation:
- i) The first auto robot have a switch that when pushed will execute certain action. The 2nd auto robot moves in to push that switch.
  - ii) The first auto robots have a color marker. The 2nd auto robot has a camera that will check that marker in order to execute certain action.

Communication refers to bidirectional exchange of data between auto robots. Therefore in the cases (i & ii) you described above, they are permitted.

### SECTION C : MATCH AND MACHINE

- 1. Can my automatic robot touch opponent's automatic robot?  
Yes, you can
- 2. Can my manual robot touch opponent manual robot?  
No, you cannot
- 3. Is it allowed for the automatic machines to place more than two builder blocks on one of the skybridge towers?  
Yes, automatic machines can place more than two (2) builder blocks on the skybridge towers. However, only the first three (3) builder blocks will be counted for points or SIAP
- 4. Is it allowed for the manual machine to place builder blocks on my own tower ?  
Yes, it is allowed
- 5. Is it allowed for the automatic machines to place builder blocks on any of the three skybridge towers ?  
Yes, it is allowed
- 6. Can automatic machine's any part stay in the start zone and this machine's other part can do any movement from this zone for example machine may can do in building site zone?  
Yes, it is permitted
- 7. Can automatic machine do any movement from middle of highway zone to building site zone?  
Yes, it can
- 8. Is it allowed that a manual machine interacts with an automatic machine via sensors on the automatic machine?  
No, it is not allowed.
- 9. Is it allowed that a manual machine indirectly pushes an automatic machine by using a builder block?  
No, it is not allowed
- 10. May automatic machine overthrow one block and may manual machine take this block?  
Yes, your auto machine can pass a block to your manual machine





11. Refer to point 2.2.4, are Automatic Machines allowed to go into opponent's start zone?  
Yes
12. Refer to point 2.2.10, are Automatic Machines allowed to move opponent's builder block?  
Yes
13. Could Automatic Machines/ Manual Machines change size/ structure after leaving the start zone?  
Yes
14. If opponent's automatic machine closed the road may our machine break this opponent's machine?  
If opponent auto machine blocks the path of your manual machine, you cannot 'break' the opponent machine. Manual machine is not permitted to block opponent's manual machine
15. In china rule was changed in the game venue for auto robot that it can't extend its parts from start zone and you say it can't throw any thing from start zone that mean auto robot can't extend it's part from start zone ?  
Yes, you are right. What I meant was just after the referee blows his whistle to start; your robot can extend its part from the start zone into automatic zone and move toward the highway zone. Be warned that it is a violation if you extend your part into manual zone.
16. According to the rules & guidelines that the robot can preloaded maximum of six builder blocks before starts (Theme & Rules vers:06.12.2005, section 2.2.3) and we are wondering that can some portions of these builder blocks be overhanging over/protruding from the border of the size of 1M x 1M (i.e. the size of the Automatic Start-Zone)? Such as overhanging/protruding these builder blocks in front of the robot and towards to the Highway Zone? If cannot place in front, how about other directions?  
Rule 2.2.3 says Maximum envelop size of all auto machines at the Auto start zone : 1000x1000x2000mm. Protruding part of the builder block is permitted ONLY in the 'height' direction( NOT in breadth or width direction) . i.e the height of your auto machine including preloaded builder blocks can exceed 2000mm
17. Can manual robot through or extend over start automatic area?  
NO except own tower zone
18. What do you mean by not extending part? Can the machine move its arm over this zone without touching the floor or entering it?  
Any part of the robot body cannot be allowed to touch the floor and the space above the restricted zone
19. Regarding total weight of machines used in the contest field, does it mean total weight of robots that can be used in each match should not exceed 50kg, or total weight of robots that can be used throughout the contest should not exceed 50kg?  
Total weight of robots that can be used throughout the contest should not exceed 50kg. NO spare robot is allowed.
20. Is it a must that the auto machines put the first block on own tower to gain SIAP?  
NO, not necessary
21. When automatic machine starts going forward on the highway zone, how much distance is enough to be?  
If you plan your robot to enter the manual zone, then your auto machine must first move to the highway zone and enter the building site zone then you make a U turn or reverse to the manual zone.
22. Can the automatic machine go backward after going forward 50-100 centimeters?  
NO definitely cannot, please refer to our revised rules (2.2.9)

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25. Can the auto machine release any builder blocks for the manual machine at the automatic machine starting point at the start of the game?  
You must move forward then release the blocks along the way but NOT at the start zone
26. Can the manual machine come to touch the wooden fence of the tower zone?  
Yes
27. Can the manual machine go over into the tower zone, i.e., touch the tower zone?  
Yes, own tower zone only
28. Is it allowed to design a robot dedicated only for blocking the opponents' robots and not for scoring?  
Yes , it is permitted to have a dedicated robot whose job is to block opponent's robot
29. Manual machines can touch to opponent automatic machine when opponent automatic machine at Manual Zone?  
Manual machines are NOT permitted to touch own or opponent's robot at any zone.



30. What is the meaning of automatic machine shall move forward into the building site zones upon starting off"? Is it means
  - i) the automatic machine can't enter the manual zone or
  - ii) can't reverse to enter the manual zone from start zone

It means if you plan your auto machine to enter manual zone, then you must go to the building site zone first before you make a U turn to manual zone. It also means that a short cut to manual zone is not allowed.
31. How long the machine can extend after the game start?
 

As long as you can
32. Can the machine enter or stay at start zone during the match?
 

Yes, but you cannot extend your robot towards the manual zone
33. May the automatic robot after building the bridge stay in its position without any movement keeping its arms touching my own team blocks?
 

Yes , you could do that. But you won't gain any point for the block you touched
34. Can the auto-machine play the game without builder block preloaded?
 

Yes you can.
35. Can the auto robot extend any of its parts into the manual zone before it makes a full entering into the builder zone? For example, after the game starts, the auto robot moves into the highway zone, then, while it is inside the highway zone, the auto robot extend its parts into the manual zone in order to distribute its builder blocks to the manual machine while it is still inside the highway zone.
 

Yes, you can. But be careful not to let your manual machine enter the automatic zone
36. It is allowed for the auto machine to give the builder blocks to the manual machine. The question is: if the manual machine uses that block (that is given by the auto machine) to build the tower and at the end of the game, the candidate SIAP condition is attained, will you count that candidate SIAP condition as "SIAP."?
 

Yes, auto machine can load manual machine and vice versa. You can achieve SIAP even with the blocks obtained from auto machine
37. It stated that "Automatic machine moves into the manual zone immediately upon starting off, one (1) point will be deducted". However, can i throw a block to manual zone then continue to move into the highway zone upon starting off? and the rules also state that "Automatic machine must move forward into the Building Site zones upon starting off. It is a violation if they do not do so." So can the automatic machine throws the block into the manual zone while moving to the building zone?
 

Yes, That's alright. Please remember you cannot throw your blocks while your are in the start zone
38. Can our automatic robots touch the opponent's builder blocks stocking area ?
 

No ! The builder blocks stocking zone and space above it is exclusively for own machines only. However, you can touch opponent's block outside this zone
39. How can our automatic robots move towards the manual zone ?
 

For example, our automatic robots have just moved away from the automatic machine start zone to the highway zone **JUST A LITTLE**, and then move back or make a U turn to the manual zone ?

No , you are not allowed to do that. The rule says you must first move forward to the highway zone then enter the building site zone (100% part of your robot must enter this zone). From the building site zone you are then allowed to make a U turn or reverse to the manual zone



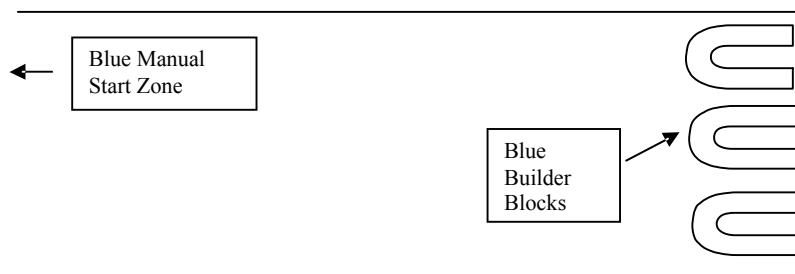
40. The rule said the auto robot must go to the building site zone first before travelling to the manual zone. Is it ok if we want the auto robot to extend only some of its parts into the manual zone during its march toward the building site zone?  
Yes. It is okay
41. Since "Automatic Machines are allowed to go into any zones except the opponent's tower zone and No entry Zone.", and Automatic machine shall move forward into the building site zones upon starting off, when can the automatic machines go to the manual zone.  
The automatic machine can move to manual zone after it made an entry to the building site zone. Meaning a short entry to the manual zone is not possible. Entry here means the whole part of the auto machine entered the building site zone. However if your strategy is not to enter the manual zone, your auto robot can stop anywhere in the highway zone.
42. What is the limit of robot arm length after starting the game?  
There is no limit
43. Can other team push the builder blocks from the tower or skybridge and put their **OWN** builder blocks?  
Yes, you could do it at the skybridge towers but a bit tricky if you want to do it at the main tower
44. If one team can push placed builder blocks of other team, can the robot keep **attached** to the sky bridge preventing the opponent's team from trying to do so?  
Yes, a team can protect skybridge towers
45. Is automatic machine must go on highway zone?  
Yes, automatic machine must move forward to highway zone and building site zone. You can stop along the way if you like
46. Is it possible automatic machine can play manual area first?  
Not possible, automatic machine must start from auto zone; Manual machine shall start from manual zone
47. Is it possible, we will do terrorist machine?  
It depends on what do you mean by "terrorist". If it means to damage opponent's robots then it is not permitted. However, if it means to block your opponent from scoring points, then it is allowed.
48. In rules 2.2.9 - *Automatic machine must move forward into the building site zones upon starting off*. Does it mean that after the start all automatic robots have to enter the building site zone first? If we want to act or stay in the Highway Zone (like separating some parts or ejecting an object that is connected with the main body), will this action be allowed in the rules? Furthermore what is the definite definition of the entry of the Building Zone? (More than 50% part steps in or merely the front of robot gets across the separating line between the two zones).  
If your strategy to move your auto robot to the manual zone, you robot must first move towards the highway zone and enter the building site zone. If you have no intention to go to manual zone, you don't have to follow this rule. Yes you can extend part of your robot into the building site zone. Entry means the whole part of your robot enter the building site zone. (100%)
49. I would like to know whether the manual machine can touch the field of the Tower Zone that belongs to its side.  
Yes, your manual robot can touch the floor of your own tower zone
50. Can the auto machine enter the opponent team tower zone only without touch the other team blocks  
Your auto machine cannot enter opponent's tower zone for any reason



51. In the final rules you mentioned that "the automatic machines shall move forward to the building site zone", I guess this means that it shall not move in any other direction? And what if the machine stopped in midway to building site zone will it be wrong or against rules?  
**"Move forward" here means move towards the highway zone NOT in opposite direction. Yes your machine can stop along the way and perform some tasks such as putting builder block in the one point scoring bin or passing builder block to manual machine etc.**
52. Refer to point 5.3.3, this means that the machines must leave the blocks/ tower before SIAP is achieved?  
**Not necessary , Your robot can stay put near the skybridge tower as long as it does not touch the tower or builder blocks**
53. Is it allowed to move to manual zone right after the start command for automatic machine  
**NO, you are not allowed to move the manual zone before first going into the building site zone via the highway zone**
54. Can building on more than one tower start simultaneously or can we start building skybridge towers before the twin tower.  
**It doesn't really matter which tower you start first.**
55. Concerning rule # 2.2.5  
 If more than one robot fills up the space area of 1000 x 1000 x 2000 when being weighed. Once placed on the automatic start zone must all three robots be placed in the same space or can they be place and started via total intervals of 20 sec. For example 3 automatic machines can be cramped above each other in the required space but once operated they need to be spaced out on the ground.  
**During the weigh-in session you don't have to necessarily place all your auto robots within the space area given. In fact we can weigh your robot one by one. However before the game starts, the auto robots must be placed within the space 1000 x 1000 x 2000. Please remember after the game starts, no repositioning of robot is allowed. If you place your robots on top of each other you must find ways how to start each machine.**

#### SECTION D : GAME FIELD AND BUILDER BLOCK

1. What is the orientation of builder blocks?
  - i) **Block orientation at the block stocking zone** : fixed in one direction as shown in the sketch 1 below.
  - ii) **Block orientation at all towers** : random, you can place them at any direction. However in case of a draw, well arranged blocks could be used as one of the criteria for selecting the winner.



**Sketch 1: Builder Bloks Starting Orientation**

2. Maximum 6 builders for automatic machines for all of them or for every automatic machine?  
**Maximum 6 builder blocks for all automatic machines. . If you have two auto machines then you must divide 6 builder blocks among them**
3. Where is the place to reload the builder blocks for both manual and automatic machine?



Manual Machines can reload builder blocks material from Builder Block Stocking Zone Automatic Machines are preloaded, but Manual Machines can reload Manual Machines at any point as long it does not touch the machine or extends over in Highway or Building Site Zones

4. How many builder blocks allowed for the manual machine and are loaded before starting or after and from where? Is the builder block will be stocked after I collect all 7 blocks from the stocking area?  
You have only SEVEN (7) builder blocks for Manual Machine in the Builder Block Stocking Zone. No extra builder blocks at the stocking area.
5. Is a Scoring Bin for both teams or exclusively only for a certain team?  
The 1 point scoring bin is not exclusive to any teams
6. Do you have possibility of change the Block's shape that is smooth?  
The builder block's shape reflects the theme thus the blocks will mirror the Petronas Twin Tower
7. Is there any fence behind the tower zone, so that manual robot can enter the tower zone?  
Yes, as you can see from the drawing, the automatic machine is surrounded by 100mm high wooden fence except at the auto start zones. Your manual robot has to extend its part in order to stack the builder blocks.
8. Refer to point 5.5.3.4b, could you elaborate what is mean by the centre-point offset?  
Center of your builder blocks should be in line with the tower center.
9. As indicated, the minimum quantity of builder blocks for each game is 26 blocks. Does it mean that the more blocks could be provided to contestants if required or 26 is the maximum number of blocks available to contestants in each game?  
For every game, each team will only be provided with 13 builder blocks, i.e 26 blocks for two teams. Damaged blocks will not be replaced during a game.
10. I ' m wondering, is there a barrier surrounds by the automatic zone? If yes, is it allowed for the manual machine to cross over or lean against this barrier? How long this barrier is fixed to the ground? Is the ground level for the automatic machine equal to the level of the manual zone or not?  
Yes, there is 100mm high and 30mm thick wooden fence surrounding the automatic zone. Manual machine are not allowed to enter or extend its part over this zone. Manual machine is however allowed to extend its part own tower zone. Manual and auto zones having the same level. Please refer game field plan at our website.
11. Is the barrier of the manual zone similar to the barrier of automatic one? Notice that the dimension of the builder block is not mentioned in the field? Their places and the distance among them and from the barrier next to them.  
Yes, there are similar 100mm high and 30m thick. Please refer to our revised drawing at our website
12. Is the "No Entry Zone "has a black color as it is shown in the painting? Is it has a certain level which lower than the surrounding ground or higher than it? **OR** is there a barrier surrounding the "No Entry zone "?  
Yes, No Entry Zones have black vinyl floor. One point scoring bins have white floor. All zones within the game field have the same floor level. Please refer to our revised drawings.
13. Is the 1 point scoring bin surrounded by barrier?  
Yes, it is surrounded by 100mm high wooden fence
14. Blue Tower and Red Tower each has a metal base round plate but the question is will it be fixed to the ground by screwed? The base plate of sky bridge will be fixed or what?



Each tower (main and skybridge) stands by virtue of its own weight ( $> 60\text{Kg}$ ). Therefore your robot must be designed NOT to exert excessive force on it. Toppling the tower means damaging the playing field and therefore you may be disqualified

15. Is there any fence behind the tower zone so that manual robot can enter the tower zone?  
Yes, as you can see from the drawing, the automatic machine is surrounded by 100mm high wooden fence except at the auto start zones. Your manual robot has to extend its part in order to stack the builder blocks
16. The building block is soft or strong ( i mean that if the hand of robot catch it ,is it 's diameter decrease), is the wooden fence strong too or weak (if an machine hits it may be broken or aweight falls on it may be broken),  
The building block is made of low density polystyrene and therefore it is soft. make sure when design your robot gripper, it won't damage the block. By damage we mean broken or hole made by the gripper or something similar.

The wooden fence is fairly strong but I don't think it can withstand excessive force, Passing through the wooden fence is not encouraged unless you can ensure that it can cause no damage .

**REMINDER :** Intentionally damaging the playing field and its components can lead you to disqualification