

Korea Robot Game Festival 2009 Common Humanoid Robot Specifications

Article 1. Robot Specifications

1-1. The humanoid robot game is intended to have competition on the performance of the mission conducted by the robot whose appearance and motion is similar to the human. The robot participant must have two legs, arms and head in its unique appearance.

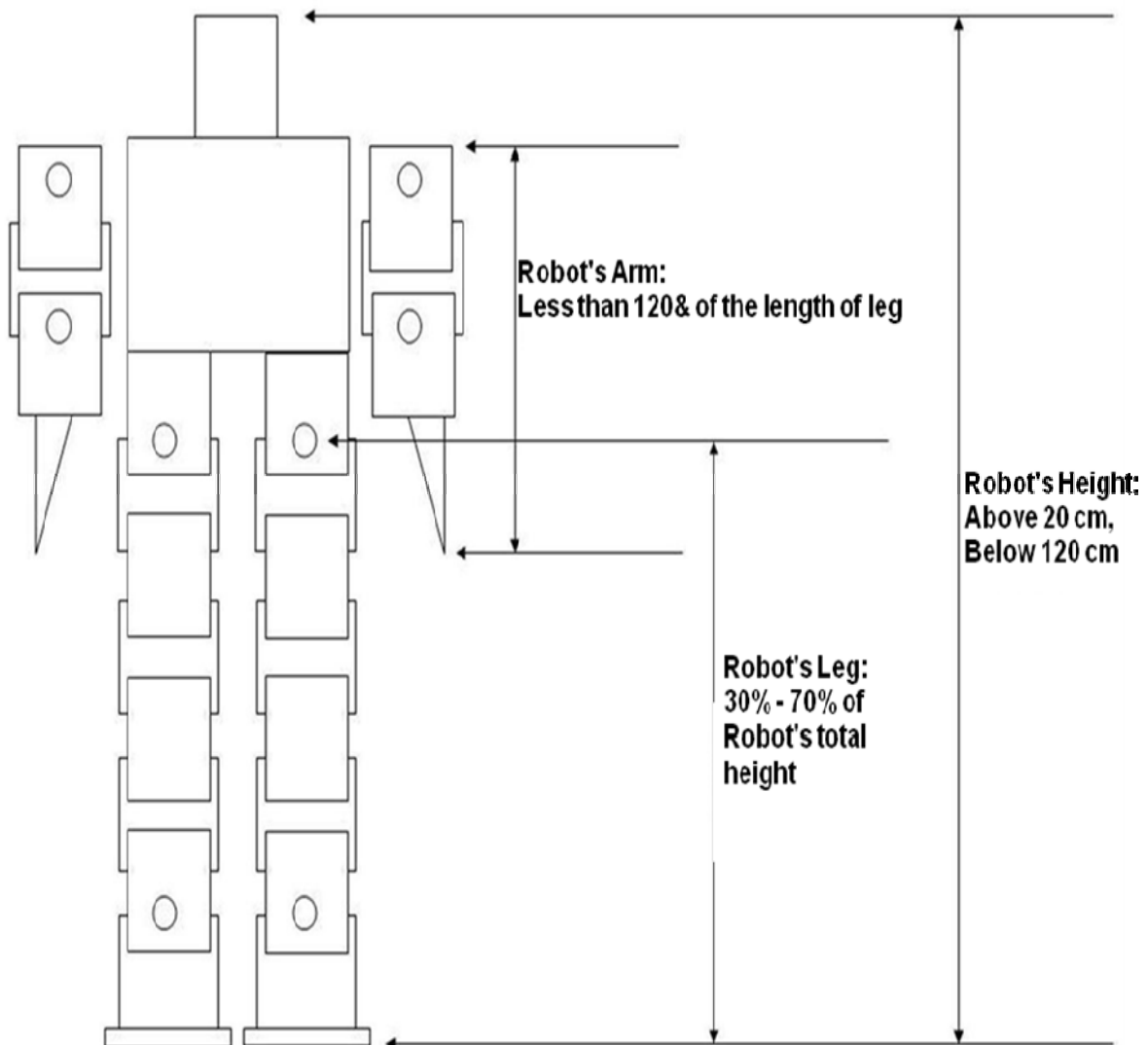
1-2. The material and shape of the robot is not limited, but the feature of the robot submitted in the application for entry may not be changed during the game period.

1-3. A robot can be disqualified if the safety of the robot is deemed insufficient prior to the start of the game under the judgment of the umpire and judges. The player shall be responsible for the risk factor inhibited in his/her robot.

1-4. Principally, the robot must be manufactured prior to the competition, and the participants must bring all of the tools required for the maintenance of the robot with them on the day of competition. Tools are not provided by the Hosting party.

1-5. Flexible-form structures such as antennas shall be excluded from the measurement, and the length of arm may not exceed 120% of the length of the robot's leg.

1-6. The length of leg shall be measured with the legs stretched, which includes from the soles of the feet to the center of the longer axis among the rotary axis moving back and forth or left to right. Such length must be within the range of 30% - 70% of the height of the robot (See Figure 1)



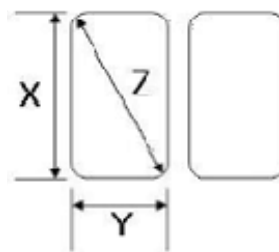
(Figure 1)

1-7. In case of the soles of foot, the type in which one leg is crossing with the other leg is unacceptable. (See Figure 2)

1-8. The dimensions of the sole of foot of the robot by weight will be as follows. (See Figure 3, Table 1)



(Figure 2)



(Figure 3)

Robot Weight	Length (X)	Width (Y)
1kg or less	60%	40%
2kg or less	55%	35%
3kg or less	50%	30%
5kg or less	45%	30%
7kg or less	40%	25%
10kg or less	35%	25%
Exceeding 10kg	30%	20%

(Table 1, Ratio of the value to leg length)

1-9. Robot must be operated with an independent power source.

1-10. For the operation of the Robot, only two methods including a wireless controller or Robot's spontaneous movement is allowed, which is restricted by the detailed regulation by individual events.

1-11. In case of controller operation, the communication method should be in Bluetooth and Jig by only.

1-12. Each team may use the computer to input the program provided that the computer required for the competition on the day must be brought with the team where a separate power source may not be supplied by the Hosting Party.

1-13. The Participant may manufacture, produce, and attach the constituents of the Robot at the option of participant, but may not use the constituent with electronic circuit related with infrared rays to disturb the operation of the opponent robot or the constituent generating EMI to destroy the opponent's electronic circuit. The team who is proven to use it shall be immediately disqualified.

1-14. The participant may not install an inhaling or absorbing device on the robot.

1-15. The participant may not attach to its robot any knife or object rotating at high speed that is not permitted by the Hosting Party because of its risk. The team who is proven to use it shall be disqualified immediately.

1-16. The participant may not use any type of weapon or structure that may be split from the main body of the robot. The team who is proved to use it shall be disqualified immediately.

- Such as the type shooting water, fire or a certain mass of object.

1-17. There is no limit of the power source used for the Robot.

Article 2. Prior Inspection

2-1. Robot is required to walk on two feet, having to be able to move straightforward, and turn .

2-2. Robot legs must be designed to be folded and stretched.

2-3. Robot has to be able to walk continuously at least five steps.

2-4. When walking, one leg of the Robot must lift from the ground without fail.

2-5. When falling forward or backward, the Robot must be able to leap to his feet for itself or via wireless controller operation.

- The restriction on how to return to its feet shall be in accordance with the detailed regulation by individual events.