

# **ROBOTS GOT TALENTS CHALLENGE**





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RoboArt is a Robots Got Talents robotics and coding challenge. You are not allowed to copy or edit this challenge guide without Robots Got Talents Permission.

Robots Got Talents 2019



# **ROBOTS GOT TALENTS:**





Robots Got Talents is a group that launch online free Robotics and Coding challenges for all ages.

In Robots Got Talents our main aim is to help future engineers from all over the world to find their talents by launching national and international

challenges for all ages. Moreover we are offering educational materials for schools, robotics clubs and educational centers to make robotics easy and available for everyone.

#### FOR QUESTIONS AND SUGGESTIONS CONTACT US ANYTIME:



robotsgottalents@yahoo.com



https://www.facebook.com/RobotsGotTalents/



https://www.instagram.com/robots\_got\_talents/



https://robotsgottalents.wixsite.com/onlinechallenges



https://www.facebook.com/groups/713636285636733/



## **1-CHALLENGE OVERVIEW:**



RoboArt is an online free challenge by Robots Got Talents. Robots Got Talents is a group that launches online free challenges for all ages. In this challenge participating teams program ROBO the virtual robot using ROBOMIND SOFTWARE to paint anything you want in the Challenge map.

Throw out the training period teams should learn about robotics, coding and computational thinking by using ROBOMIND SOFTWARE (teams can use the trail

version of the software). To win this Challenge participant must make a PROJECT VIDEO (a 2-5 minutes video that introduces the team and the project) and submit their RoboMind code to the Robots Got Talents Website.

This is a full helping guide for the RoboArt challenge that contains all rules dates and links that coaches and students should know.

Good Luck

#### **1.1-KEY DATES**

Key Dates are important dates that all participating teams must know and follow.

#### Note: all the following dates are according to the GMT (Greenwich Mean Time)

MONDAY	
25 February	Registration End date
2019	Team Registration Ends (Teams cannot register after this date).
MONDAY	
11 February	Submission open date
2019	Teams can send their codes, Project video and challenge photos.
MONDAY	
18 March	Submission closing date
2019	Submissions will not be accepted after this date
THURSDAY	
21 March	Challenge Judging Period
2019	Judging of all eligible team submissions.
SUNDAY	
25 March	Ceremony Date
2019	Announcement of the Challenge winners



#### **1.2-IMPORTANT LINKS (URL):**



#### Robots Got Talents

Robots Got Talents Website: <u>https://robotsgottalents.wixsite.com/onlinechallenges</u>

Robots Got Talents Email: <a href="mailto:robotsgottalents@yahoo.com">robotsgottalents@yahoo.com</a>

Robots Got Talents FB page: <u>https://www.facebook.com/RobotsGotTalents/</u>

Robots Got Talents Instagram: <u>https://www.instagram.com/robots\_got\_talents/</u>

RoboArt Challenge

RoboArt Webpage: <u>don't forget to edit</u>

RoboMind Program

RoboMind Website: <a href="https://www.robomind.net/en/">https://www.robomind.net/en/</a>

RoboMind Download: https://www.robomind.net/en/download.html

RoboMind Map editor: <a href="https://www.robomind.net/mapeditor/">https://www.robomind.net/mapeditor/</a>



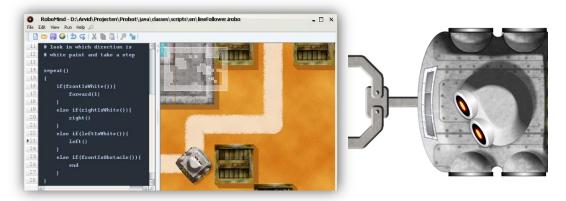
#### **1.3-USING ROBOTS GOT TALENTS WEBSITE:**



Step One	The first step is Opening the Challenges Webpage to view available challenges, submit your project video and other submissions; there you can also download the logos, FAQ and challenge rules.
Step Two	When you have opened the challenges webpage, you will find challenges that are available, coming soon and under construction. To open any challenge press (Join Now) button
Step Three	Your next step is checking the FAQ and Key Dates. When pressing the (JOIN NOW) button you will be taken to an online registration form that you should fill to participate in the challenge
Step Four	Step four is filling the Registration form, each challenge has its own registration form that all participants must fill. All information submitted must be correct as it will be used send rules, additional materials and certificates.
Step Five	Downloading Rules and Logos to know more information about that challenge and seeing the key dates.
Step Six	On the First day of the submission period you can start submitting all your project video, photos and codes to be judged. You will find the Submission Area in the webpage of the challenge.



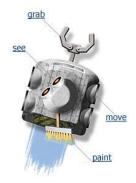
# **2-ROBOMIND SOFTWARE:**



RoboMind is a simple educational programming environment with its own scripting language that allows beginners to learn the basics of computer science by programming a simulated robot. In addition to introducing common programming techniques, it also aims at offering insights in robotics and artificial intelligence.

RoboMind is available as stand-alone application for Windows, Linux and Mac OS X. It was first released in 2005 and was originally developed by Arvid Halma, Since 2011 RoboMind is published by Research Kitchen.

#### 2.1-ROBOMIND PROGRAMMING:



To program the robot a new programming language 'ROBO' has been developed. It is a concise language with a small set of rules which require no foreknowledge. In this way students can start with RoboMind right away. Although ROBO is a concise language it still leaves plenty of room to make interesting programs. The programming principles used thereby lay at the heart of most other programming languages. Here are some of the simple commands that teams may need to use in this challenge.

Moving Commands	$\widehat{\mathbf{Y}}_{forward(n)}$	Move n steps forward	
	backward(n)	Move n steps backward	
	اeft()	Turn left over 90 degrees	
	right()	Turn right over 90 degrees	



	north(n)	Turn to head north and move n steps forward
	south(n)	Turn to head south and move n steps forward
	east(n)	Turn to head east and move n steps forward
	west(n)	Turn to head west and move n steps forward
Painting Commands	paintWhite()	Put the brush with white paint to the ground.
	paintBlack()	Put the brush with black paint to the ground.
	StopPainting()	Stop painting, hide the brush
<mark>Grabbing</mark> Commands	العام ()	Get the beacon in front of the robot
	رف putDown()	Put a beacon in front of the robot
	الله eatUp()	Pick up and destroy the beacon in front.
<mark>Obstacles</mark> Commands	Left Fro	ont Right

leftIsObstacle()	frontIsObstacle()	rightIsObstacle()
leftIsClear()	frontIsClear()	rightIsClear()
leftIsBeacon()	frontIsBeacon()	rightIsBeacon()
leftIsWhite()	frontIsWhite()	rightIsWhite()
leftIsBlack()	frontIsBlack()	rightIsBlack()



#### **2.2-CODE EXAMPLE:**

```
#RoboArt_2019
#character 'A'
paintWhite()
forward(2)
right()
forward(1)
right()
forward(2)
backward(1)
right()
forward(1)
```

stopPainting()



Because the robot is able to paint, you're able to create simple drawing programs.

Using paintWhite() and stopPainting() you can command the robot to put its brush on the ground or not. When you let the robot move, it will leave a line on the ground. In this manner you can write characters like 'A'.

In the map RoboArt openArea.map you'll have enough space to create a nice piece of art.



#### **2.3-ROBOART CHALLENGE MAP:**



RoboArt Challenge has its own map that all teams must draw, paint and color inside it. The design of the map should be as shown above.

RoboMind offers a map generator and we prefer that teams try to build their own maps using the map generating option in the menu the dimensions for the RoboArt Challenges must be the following:

New 1	Generate map
Open >	Map editor Create maps in an browser-based editor
Save Save	Maps
Save as	🧿 Generate Map 📃 🗆 🗙
Print	Select type Islands OK Islands of baxes with a beacon somewhere around the center
Export	
Translate script	width 24
🔵 Open map >	height 16 id 42
Save map as	
	💭 findSpot1.map
K Settings	🕞 findSpot2.map

Map Type: Open Area

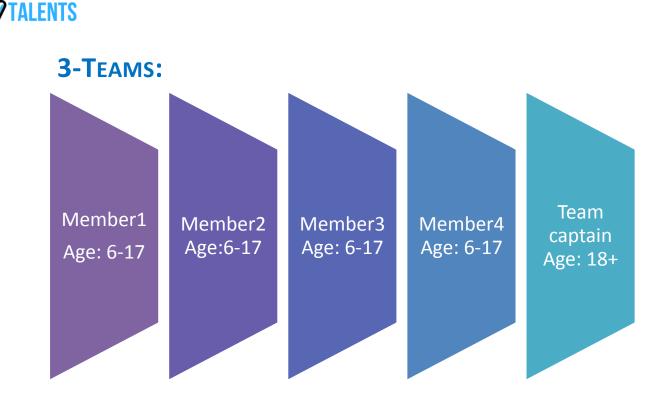
Width: 24

Height: 16

**ID: normal** 

Note: For teams having problems creating their own map, you can submit your problem to Robots Got Talents website and we will help you or send you a premade map

🧿 Gei	nerate Map	- 🗆	x
Select ty	/pe Open Area 🗸 🗸	ОК	
And	open rectangular area		
width	24		)
height	16		)



The following rules are for RoboArt only not all Robots Got Talents Challenges.

#### **3.1-TEAM MEMBERS:**

OBOTS GOT

All teams must comply with the rules for competing in RoboArt Challenge 2019, including the age requirements and team sizes stated. It is the responsibility of the participating team supervisors to verify the participants' eligibility requirements, which are as follows:

- Age requirement: All team members must be aged 6 to 17 years old
- Team size: Each team must have 2 to 4 members (2.min.-4.max)
- Membership: Each team member needs to carry a role within the team. Every participant can join only one team. No member can be shared between teams.
- Countries: All team members must be from the same country

Note: only registered members will receive a Robots Got Talents participation certificate.

#### **3.2-TEAM CAPTAIN:**

The Team Captain is the person (adult) responsible for uploading all Team information to the Robots Got Talents website and helping the team members in their project & submissions and photos.

- All online submissions of any kind related to the Challenge must be submitted by the Team Captain.
- Team captain is responsible for helping and teaching members throughout the training period.



- Captains must be at least 18 years of age as of the date of the Team's registration in the Challenge
- Each team can only have one captain.
- Captains cannot be shared between teams.
- Captain cannot be one of the team members



## **4-SUBMISSIONS:**

Project Video	<ul> <li>2-5 minutes video or presentation done by the team to explain there project</li> </ul>
RoboMind Code	<ul> <li>The RoboMind code done by the team members to draw something</li> </ul>
Team training photos	<ul> <li>7-15 photos that show the team throughout their training period</li> </ul>

#### **4.1-PROJECT VIDEO:**

The project video is a 2-5 minutes video or presentation done by all team members that should contain the following:

- RoboArt Challenge introduction
- Team Introduction
- Members roles
- Project Introduction
- Codes explanation
- What did you learn from Robots Got Talents Challenge
- Links and resources

Your Project Video must be uploaded by the team captain on a video platform as Youtube.com and Youku.com are the most preferred ones. The video must also include a title and description containing: RoboArt: A Robots Got Talents Challenge + the Team's name (optional).

Make sure your project video has a good quality. Sound and video editing is allowed unless used to cover or edit codes. Your video must include the Robots Got Talents Logo throughout the video

Note: Before submitting your video make sure to check your URL and link from a separate computer or device than the one you upload it from.



#### **4.2-CODE:**

All teams must submit their full RoboMind (art) code to the Robots Got Talents Website before the end of the submission period.

The code must be submitted as a text in the code submission box. Team name and country must be mentioned on the top of the code as a comment.

#### **4.3 – CHALLENGE PHOTOS:**

Each team should send (7-15) photos that show the team throughout their training period while writing codes, reading rules, learning new things and having fun. All photos must contain Robots Got Talents Logo.

Photos will not be uploaded to Robots Got Talents Website Gallery unless team accept so using the submission form.



## **5-LANGUAGE AND LAYOUT**

The official language of the Challenge is English. All competition submissions shall be in English, unless the Team has received prior written permission from the Robots Got Talents Management to submit their work in another language.

Subtitles are allowed for teams using foreign language (other than English) in their project videos but all codes must be translated to English before it is submitted to Robots Got Talents Website



### **6-AWARDS**



After all submissions are submit judges start awarding and giving grads to the participating teams. All participating teams will be awarded a participation certificate and the following awards winners will gain an extra certificate for their award. Each team can only win one award

Global winners (1<sup>st</sup>,2<sup>nd</sup>,3<sup>rd</sup>) : Awarded for the team with the best Project Video, Drawing and code

Best explainers: Awarded for the team with the best project explainer.

Rising Star Award: Awarded for the project video with the maximum number of views.

Best Code Award: Awarded for the team with the best RoboMind code containing smart movements

Best Drawing Award: Awarded for the team with the best Drawing in the challenge



# 7.0- FAQ

#### Q1- What is Robots Got Talents?

A1- Robots Got Talents is a group that launch online free Robotics and Coding challenges for all ages

#### Q2- Is RoboArt challenge 100% free?

A2- Yes, this challenge and all Robots Got Talents are 100% free, so you do not need to pay any registration or certification fees.

#### Q3- What is the RoboArt Challenge?

A3- In this challenge participating teams program ROBO the virtual robot using ROBOMIND SOFTWARE to paint anything you want in the Challenge map.

#### Q4- Can I use the trial version of the RoboMind Software?

A4- Yes, teams are allowed to use the trial or the paid version for the RoboMind Software.

#### Q5- What will participants learn from this challenge?

A5-Throw out the training period teams will learn about robotics, coding and computational thinking by using ROBOMIND SOFTWARE.

#### Q6- What are the submissions needed for RoboArt challenge?

A6- All Participating teams must submit their PROJECT VIDEO, ROBOMIND CODE and CHALLENGE PHOTOS to Robots Got Talents official website before the end of the submission period.

#### Q7- What are the Key Dates?

A7- Key Dates are important dates that all participating teams must know and follow, if a team submits their submissions after the end of the submission period their submissions will not be accepted. Teams registered after the end of the registration period will not be allowed to join the challenge.

#### Q8- What happens if a registered team did not submit their work?

A8- If a registered team did not submit their work at all, the team will be disqualified and all team members will not be allowed to join any of Robots Got Talents future challenges.

#### Q9- What is RoboMind Software?

A9- RoboMind is a simple educational programming environment with its own scripting language that allows beginners to learn the basics of computer science by programming a simulated robot. In addition to introducing common programming techniques, it also aims at offering insights in robotics and artificial intelligence.



#### Q10- What is the RoboArt Challenge Map?

A10- RoboArt Challenge has its own map that teams must draw, paint and color inside it. Each team must create his own RoboMind Map using the map generator. The map must be with the same value listed above.

#### Q11- If I am facing problems in creating my own map from where can I download it?

A11- the Challenge map is available in Robots Got Talents website (RoboArt Webpage)

#### Q12- What is the age limit for RoboArt Challenge?

All team members must be aged 6 to 17 years old.

#### Q13- How many members can join in a team?

A13- Each RoboArt team must have 2 to 4 members (2.min.-4.max).

#### Q14- What is a team captain?

A14- the Team Captain is the person (adult aged +18) responsible for uploading all Team information to the Robots Got Talents website and helping the team members in their project & submissions.

#### Q15- How many captains can participate for a team?

A15- No, Each team can only have one captain.

#### Q16- Is a captain allowed to teach more than one team?

A16- No, Captains cannot be shared between teams.

#### Q17-Can one of the team members join as a captain?

A17- No, Captain cannot be one of the team members. A captain must be an adult aged +18.

#### Q18-Can participants form different countries join in one team?

A18- No, all team members must be from the same country

#### Q19- What are the submissions needed for RoboArt challenge?

A19- All Participating teams must submit their PROJECT VIDEO, ROBOMIND CODE and CHALLENGE PHOTOS to Robots Got Talents website.

#### Q20- What is a Project Video?

A20- The project video is a 2-5 minutes video or presentation done by all team members that should contain (RoboArt Challenge introduction, Team Introduction, Members roles, Project Introduction, Codes explanation, What did you learn from Robots Got Talents Challenge, Links and resources ...etc.)+ Your video must include the Robots Got Talents Logo throughout the video



#### Q21- Where should I upload the project video?

A21- Your Project Video must be uploaded by the team captain on a video platform as Youtube.com and Youku.com. The video must be submitted as URL.

#### Q22- What should I write in the video title & description?

A22- The video must also include a title and description containing: RoboArt: A Robots Got Talents Challenge + the Team's name.

#### Q23- Is editing the Project Video allowed?

A23- Yes, Sound and video editing is allowed unless used to cover or edit codes.

#### Q24- What is the Code submission?

A24- All teams must submit their full RoboMind (art) code to the Robots Got Talents Website before the end of the submission period.

#### Q24- How to submit my code?

A24- The code must be submitted as a text in the code submission box, so you can just copy then paste. Team name and country must be mentioned on the top of the code as a comment.

#### **Q24-** What are Challenge Photos?

Each team should send (7-15) photos that show the team throughout their training period while writing codes, reading rules, learning new things and having fun.

#### **Q25-** Should my Challenge Photos Challenge photos include any logos?

A25-Yes, All photos must contain Robots Got Talents Logo.

#### Q26- Will the Challenge Photos be used in Robots Got Talents Gallery?

A26- No, Photos will not be uploaded to Robots Got Talents Website Gallery unless team accepts so using the submission form.

#### Q27- How does Robots Got Talents Judging work?

A27- After the end of the submission period, Judges start awarding and giving grads to the participating teams according to their Project Video, Code and Challenge Photos.

#### Q28- Will all teams get a certificate?

Yes, all participating teams will be awarded a participation certificate and there are 7 main awards that will be awarded to the top teams as mention in the Awards page. Each team can only win one award.



# 7.1- TERMS&CONDITIONS



• Organizations participating in the challenge are not allowed to use camp guides, presentations or logos in any other camp, course or challenge

• All camp teams will participate in RoboArt International challenge

• You are not allowed to share or give the challenge information to any other organization without Robots Got Talents permission.

You are allowed to use this challenge for

commercial uses without including Robots Got Talents name and logo.

• All students must be given Robots Got Talents challenge certificate.

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- Organizations are not allowed to repeat or remix RoboArt Challenge without Robots Got Talents Permission
- You are not allowed to edit challenge logos, certificates or guides.