



WORLD ROBOT OLYMPIAD™

Statement of WRO® Guiding Principles and Ethics Code

2021

Changes compared to 2020:
references to ARC were taken out and the documents are updated
to include Future Engineers.

The WRO Guiding Principles

World Robot Olympiad™ was established to help young people develop their creativity and problemsolving skills. We do this in the form of robotics competitions, but our main goals are to:

- Help young people acquire 21st century skills like creative and innovative thinking.
- Encourage young people to be our future scientists, engineers, makers and inventors.
- Expand the horizon of young people through exploration of robots and robotic systems.
- Help introduce the concept of modern science into educational activities.
- Promote robotics in STEM education worldwide.
- Have young people from all over the world to measure their skills and have fun.

We are aware that a competition usually means that those involved are driven to win. This applies to team members, coaches, parents and even to countries. We feel there is nothing wrong with that, as long as the guiding principles of the competition remain intact.

These WRO Guiding Principles are:

- Teams are encouraged to learn and master new skills while having fun together.
- Coaches, mentors and parents are there to guide the teams, not to do the work for them.
- Participating and learning are more important than winning.



WRO Ethics Code for National Organizers

By acting as National Organizer for World Robot Olympiad you are our most important partner in upholding the WRO Guiding Principles. We expect you to follow these standards:

As a National Organizer you will:

- Respect the WRO Guiding Principles in our national competitions.
- Communicate to teams, coaches, mentors and parents that cheating or not playing fair has consequences.
- Guide and instruct your organizing staff and judges in maintaining a fair competition and support their decisions.
- Take measures to deal with inappropriate behavior of teams, coaches, mentors and parents in our competitions.
- Do your absolute best to make sure that only teams that respect the WRO VALUES qualify for and come to a WRO International Event.

WRO Ethics Code for Teams & Coaches

We expect all Teams and Coaches to adhere to the following code by signing the statement when entering the competition. This statement should be signed by all teams, in both national competitions and at international WRO events.

As a Team we follow these principles:

We are participating in a competition.
We like to win. We want to learn.
And we also want to have fun.

We want to play fair.
We design our own robot and we write our own program.
It is not fair if someone else does that for us.

We can only learn if we try things ourselves.
Our coach can teach us things and guide us.
And we can also get inspired by others.

But our coach should not do the work for us.
And we do not simply copy a robot or software from someone else.
We use the examples we find to design our own robot and programming.

Sometimes we fail and that is OK.
Original ideas come from failing.
Winning is nice but failing is part of our journey.

WRO Ethics Code for Judges

Judges play a very important role in the WRO competitions. They should be fair and help create a wonderful experience for all the children.

As a judge, we expect the following of you:

- know the rules and the scoring system for the category and age-group you judge
- promote fair play and appropriate behavior by all participants
- match the skill levels and needs of the participants in the age-group you judge
- not to comment on or criticize other judges in public
- remember that this is a competition for children - always give them the benefit of the doubt
- always be on time - for meetings, judging or appointments
- be appropriately dressed - in the judging uniform (no clothing that links you to a team)
- be consistent and objective, and not to prejudice towards teams that you know
- accept decisions made by Head Judges
- not to share any information about the judging process or scores to anyone who is not a judge
- reclude yourself from judging a team you are connected to - if and where possible
- supply feedback to the National Organizer if you feel the need for changes to be made
- know the conflict resolution process and how to deal with appeals

Addendum: Resources for National Organizers

- The WRO Ethics Code for National Organizers
- What do we consider inappropriate behavior and cheating?
- The WRO Ethics Code for Teams & Coaches
- What is OK and what is Not OK (Overview for Teams)
- WRO Guiding Principles for Judges at the International Final



The WRO Ethics Code for National Organizers

As a National Organizer we will follow the WRO Guiding Principles:

- Teams are encouraged to learn and master new skills while having fun together.
- Coaches, mentors and parents are there to guide the teams, not to do the work for them.
- Participating and learning are more important than winning.

As a National Organizer we will:

- Respect the WRO Guiding Principles in our national competitions.
- Communicate to teams, coaches, mentors and parents that cheating or not playing fair has consequences.
- Guide and instruct our organizing staff and judges in maintaining a fair competition and support their decisions.
- Take measures to deal with inappropriate behavior of teams, coaches, mentors and parents in our competitions.
- Do our absolute best to make sure that only teams that respect the WRO values qualify for and come to the WRO International Final.

What does WRO consider inappropriate behavior and cheating?

Preparation for the competition:

- Coaches/parents/mentors building robots or writing software for the team.
- Teams buying solutions online and using those solutions in a competition. (hardware and/or code)
- Teams copying solutions from others and using those solutions in a competition. (hardware and/or code) o Exception: Teams are allowed to use the basic robot models that are provided in the LEGO Education lesson plans and adapt those for the challenge.
- Coaches/parents/mentors building and preparing things for the Open Category booths and/or the Robot model.

At the competition day:

- Teams using a manual to put together the robot.
- Coaches/parents/mentors entering the competition areas.
- Coaches/parents/mentors trying to tell the team how to solve a surprise rule.
- Coaches/parents/mentors trying to help the teams during assembly times.
- Coaches/parents/mentors building an open category booth for the team when it is not needed.
- Coaches/parents/mentors giving directions to the teams during matches, building time or Open Category presentations.
- Coaches/parents/mentors joining in any rules discussion with referees and judges
- Interfering with competition tables, booths, materials or robots of other teams.

How to address inappropriate behavior and cheating?

- Promote the WRO Values in all tournaments, and have teams & coaches commit themselves to those values when registering.
- Communicate up front that teams can be subject for investigation if irregularities are detected.

Possible actions:

- Introduce a short software & hardware check (interview) for all teams during building time, to assess if teams did the work themselves.
- Different forms or penalties are possible for misbehavior:
 - o A team may not be allowed to participate in one or more runs.
 - o A team may get up to a 50% reduced score in one or more runs.
 - o A team may not qualify for the next round (in case you have a qualification model).
 - o A team may not qualify for the international final.
 - o A team may be disqualified completely from the competition.
- Use the concept of yellow and red cards for teams, coaches and supporters: If someone misbehaves you can give the team a yellow card and warn the persons involved that the 2nd time they will get a red card. And a red card will result in a penalty.
- Other actions that fit your competition and country

The WRO Ethics Code for Teams

“It is not whether you win or lose, but how much you learn that counts.”

As a team we follow these principles:

We are participating in a competition.
We like to win. We want to learn.
And we also want to have fun.

We want to play fair.
We design our own robot and we write our own software. It
is not fair if someone else does that for us.

We can only learn if we try things ourselves.
Our coach can teach us things and guide us.
And we can also get inspired by others.

But our coach should not do the work for us.
And we do not simply copy a robot or software from someone else.
We use the examples we find to design our own robot and programming.

Sometimes we fail and that is OK.
Original ideas come from failing.
Winning is nice but failing is part of our journey.

Team name: _____

Name & signature of Coach: _____

Name & signatures of Team members: _____

What is OK and what is not OK in World Robot Olympiad™?

OK	Not OK
All competitions	All competitions
We search for information online and share ideas with other people. We learn from the examples and use what we have learned in our own robot. (hardware and/or software)	We buy a solution online or we use a direct copy of another person. We use that solution in the competition. (hardware and/or software)
Our coach/mentor/parent advises us on different ways to program things.	Our coach/mentor/parent programs the software (or parts of the software) for us.
Our coach/mentor/parent shows us different ways of constructing things.	Our coach/mentor/parent builds the robot (or parts of the robot) for us.
Our coach/mentor/parent lets us find out what to do ourselves if things don't work.	Our coach/mentor/parent fixes it for us if things don't work.
Our coach/mentor/parent lets us handle things ourselves on the competition day.	Our coach/mentor/parent discusses with the judges about the rules and decisions on the competition day.
We want to win the competition, but not by cheating or having someone else do the work for us.	We want to win the competition, it does not matter how we win it.
Regular Category	Regular Category
We try to solve the surprise rule ourselves, because we have learned all the basics and can find a solution as a team.	Our coach/mentor/parent tries to give us the instructions to solving the surprise rule after it has been announced.
Open Category	Open Category
Our coach/mentor/parent only helps us with preparing our Robot model or Open Category booth if it is needed. (For example, if things are too heavy, if we need to learn new skills, or if something is too dangerous for us to prepare on our own.)	Our coach/mentor/parent decides what our robot model and/or our booth will look like and builds things for us even if we could make it on our own.
WRO Football & Future Engineers	WRO Football & Future Engineers
We adapt our strategy ourselves and repair / adapt our robots ourselves.	Our coach/mentor/parent suggests or tells us how to change our strategy and repairs / adapts our robots for us.

WRO Guiding Principles for Judges at the International Final

As a judge at the International World Robot Olympiad Final you play a very important role. You have volunteered to do this incredibly important, time consuming, and often difficult job, but without you and other good judges, the competition would not be what it is today.

We would like you to first of all help create a wonderful experience for all the children, one that they will never forget. You do this by keeping the children in mind. This is a competition for children and all the participants here have worked hard all year to make it to this event.

We urge you to treat all the children with respect and treat their endeavors, attempts and work with the same respect. You have a responsibility to make sure that other judges do as well.

As a judge, we expect you to do the following:

- know the rules and the scoring system for the category and age-group you judge
- promote fair play and appropriate behavior by all participants
- match the skill levels and needs of the participants in the age-group you judge
- not to comment on or criticize other judges in public
- remember that this is a competition for children - always give them the benefit of the doubt
- always be on time - for meetings, judging or appointments
- be appropriately dressed - in the judging uniform (no clothing that links you to a country/team)
- be consistent and objective, and not to prejudice towards teams from your country
- accept decisions made by Head Judges or Tournament Directors
- not to share any information about the judging process or scores to anyone who is not a judge
- reclude yourself from judging a team from your country - if and where possible
- supply feedback to the WRO Association if you feel the need for changes to be made
- know the conflict resolution process and how to deal with appeals

Conflict Resolution

Disagreements, complaints or appeals (all in English) must be directed to the judges:

- before signing the score sheet [Regular Category/Future Engineers/Football]
- before the judges leave the booth [Open Category]

In the event that a team cannot accept the decision of the judges, the Category Head Judge will make the final decision.

Either of the Head Judges should be present during the deliberation in case the Category Head Judge is the same nationality as the appealing team.

Once the Category Head Judge has made a final decision, the decision may not be appealed further or changed.

Key elements to being a good WRO judge

Communication

professional dealing with participants,
coaches, parents and fellow judges

Judgement

starts with understanding of rules grows
with experience

Commitment

dedicated to the cause/task
adhere to all requirements

Fairness

judgements free of discrimination
judgements free of subjectivity

Consistency

same in all circumstances
apply same rules to all

Integrity

complete absence of bias
unaffected by sources of influence

Rapport

courteous and respectful
relating effectively to others

What it means to be a WRO Judge

*“Although Officiating/Judging involves technical knowledge, there is
definitely an Art to being an effective Judge/Official/Referee”*