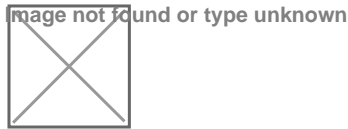


Q&A

VAIC-U 2020-2021



Welcome to the official VEX Robotics Competition Question & Answer system, where all registered teams have the opportunity to ask for official rules interpretations and clarifications. This Q&A system is the only source for official VRC Change Up rules clarifications, and the clarifications made here from the Game Design Committee (GDC) are considered as official and binding as the written [Game Manual](#) itself.

Please review the [Q&A Usage Guidelines](#) before posting. This system is only intended for specific VRC Change Up rules questions.

- For event, registration, or other competition support questions, please contact your [REC Foundation Regional Support Manager](#).
- For VEX technical support, contact support@vex.com or sales@vex.com.
- For game questions, suggestions, or concerns outside of specific and official rules questions, contact GDC@vex.com.

Cooling Fans

AIR6 states:

<AIR6> There is no restriction on sensors and other additional electronics that Robots may use for sensing and processing, except as follows: a. Sensors and electronics MUST be connected to the V5 Robot Brain via any of the externally accessible ports (i.e. without any modification to the microcontroller). A sensor may be connected to a processing unit which then connects to the V5 Robot Brain. b. Sensors and electronics CANNOT directly electrically interface with VEX motors. c. The additional sensors and electronics may only receive power from any of the following: i. Directly from the V5 Robot Brain via any externally accessible port. ii. From an additional lithium ion, lithium iron or nickel metal hydride battery pack (only one (1) additional battery can be used for sensor/processing power). Battery pack must operate at a maximum of 12 volts nominal. d. Only the V5 Battery can power the V5 Brain.

Is it legal to use a fan for the sole purpose of cooling custom electronics? A common example where this would be useful is a CPU cooling fan for a compact external processor, such as an Nvidia Jetson or Raspberry Pi.

If this is ruled as legal, would it also be legal to use a fan for the purpose of cooling non-custom electrical components, such as V5 Smart Motors?

In the past this was ruled as illegal for VEXU (<https://www.robotevents.com/VEXU/2018-2019/QA/184>), and AIR6 is worded identically to VUR6. However, this would mean that the cooling fan included in the VAIC kit would be illegal to use on the robot. To confirm, does the old VEXU ruling not apply any more and is the cooling fan for the Jetson nano legal?

Answered by Game Design Committee

Please see: www.robotevents.com/VAIC-HS/2020-2021/QA/675

Separation of VAIC-U and VAIC-HS Q&A

Is it intentional that the VAIC-U and VAIC-HS Q&A's be separated?

If so, do rulings in the VAIC-U Q&A apply to VAIC-HS teams and do rulings in the VAIC-HS Q&A apply to VAIC-U teams?

Answered by Game Design Committee

Thank you for pointing this out, we will look into it with the development team behind RobotEvents and the Q&A system. All rulings are the same for both high school and university VAIC participants, unless otherwise noted.