

Student and Teacher Questions and Answers

Kwadropus – Suction Cups

I am expecting that the first Kwadropus we make will be around 24” in diameter so that you can make your component the size you want for demonstrations of how it works. I don’t want you to worry about size right now, I want to see your ideas for functionality. Eventually I expect that the Kwadropus robot we send to a future space station will need to be around 12” in diameter so it can clean in smaller nooks and crannies. I don’t need you to design for this yet but keep it in mind as you develop your prototypes.

I have seen some good suction cups as I go around to the PDRs with some innovative ideas and methods for attachment and release. I don’t think they have to be a super strong hold, probably needs to hold a few ounces—lets say 10 ounces for now. Most important is to attach and detach without pushing the pushing or pulling the robot. (astronauts can move around inside the space station with their pinkies if they want to)