

Rice Harvest Challenge

The Challenge below asks you to design and PROGRAM a machine that can harvest as much rice as possible in 90 seconds (1.5 minutes).

Please look at the rules carefully and go over the Marking Scheme before you begin.



The Challenge:

Have a look at the rice tray at the front of the class. Your job will be to get as much rice into container B. your device will start in corner A.

Rules:

1. Your Robot (or device) must start in the zone marked by **point A** below.
2. Your device must not leave the rice field during the harvest.
3. You may not anchor your device to the rice field.
4. You may not add tape, paper or any other materials to your device
5. The rice you collect in **container B** will be measured by **weight**.
6. Any rice that you have spilled on to the ground will be deducted from your weight
7. You will get **90 seconds** of harvest time.

A



B



Evaluation Form:

Rate the follow statement from 0-5 {5 being **absolutely true**, and 0 being **not at all**}

1. I *continually tested* and *redesigned* my Harvester **several times** in order to *identify and analyse important elements of the competition task* and create the best solution I could.
2. My Harvester was *ready to go* and in *good operating condition* at the start of each of my trials so there was no unnecessary delay.
3. I used my **programming skills** to **improve** my Harvester's ability to collect the greatest amount of rice and collect pucks more efficiently.
4. I used class time affectively (I was always focused on my project).
5. My competition performance was excellent.

A fair grade for me (out of 25)

Core Competencies:

	Needs improvement	Satisfactory	Great
Working with well with others?	I am not open to working with others. I rarely share my work or ask other for help.	I work with others in class. I regularly share my work, ask for help, and help others.	I share my work. I help others and they help me. I am a positive influence when I work with another individual or group. I can think of instances where myself and others have worked together to solve a problem.
Creating?	I am learning stuff, but not usually creating anything new. I like to ask for and follow detailed instructions regularly.	I am definitely learning. I am sometimes able to put ideas together create something new or different.	I discover and create new things in my work regularly. My work usually exceeds the expectations of a given assignment or project.
Displaying Work?	People are too busy to see my work. There have been a few projects where people did not see my work	I show my work to my classmates and Mr. Walzl only when instructed to do so.	I'm proud of my work and display it in a way that people understand. I always make sure to show my projects to classmates and Mr. Walzl. I sometimes show my work to people outside of class
Solving Problems	When I get stuck. My progress slows down.	When I get stuck I actively look for new options and solutions. I make a plan to move forward	When I get stuck examine all options, make a plan and follow through until the problem is solved. I am able to work with others effectively and positively while solving problems

A fair grade for me (out of 20)