



# MONTHLY CHALLENGE

## INGENIEURSWESE - HOERSKOOL



Engineering is usually done when there is a specific need in society for which a device is designed, built and tested and then redesigned, rebuilt and retested until the need is met.

### INTRODUCTION ON NURDLES

“Nurdles are the building block for all our plastic products. The tiny beads can be made of polyethylene, polypropylene, polystyrene, polyvinyl chloride and other plastics. Released into the environment from plastic factories or when shipped around the world as raw material to factories, they will sink or float, depending on the density of the pellets and if they are in freshwater or saltwater.

Like crude oil, nurdles are pollutants, and will continue to circulate in ocean currents and wash ashore for decades. They are also “toxic sponges”, which attract chemical toxins and other pollutants on to their surfaces.”

[Taken from [www.theguardian.com/environment/2021/nov/29/nurdles-plastic-pellets-environmental-ocean-spills-toxic-waste-not-classified-hazardous](http://www.theguardian.com/environment/2021/nov/29/nurdles-plastic-pellets-environmental-ocean-spills-toxic-waste-not-classified-hazardous)]

Ontwerp 'n toestel wat in staat sal wees om drywende nurdles uit die see te verwyder. Jy sal 'n gedetailleerde benoemde skets van jou toestel moet oplaai en dit moet geannoteer wees om te wys hoe dit die nurdles sal verwyder en veilig bewaar. Jy moet ook andui wat sal met die nurdles gebeur sodra dit gestoor is.

### DIE ONTWERPSKETS:

1. Gebruik 'n A4-bladsy of verskeie A4-bladsye.
2. Gebruik 'n swart pen/HB/BB potlood om jou skets te hand teken.
3. L.W Onthou om die beplanning te wys en die toestel met aantekeninge. Jy kan meer as een bladsy gebruik om dit te doen.

Anntekeninge = voeg notas by 'n diagram.

### Instruksies:

- Sperdatum om jou antwoord op die Google-vorm in te dien is 17 April 2023.
- Ons sal die Provinsiale wenner vir elke uitdaging later in April aankondig.
- Oplossings sal op die webwerf gepubliseer word by hierdie skakel - [www.ctsc.org.za/stem-clubs/](http://www.ctsc.org.za/stem-clubs/)

Please type this link into your Google search bar to answer

**<https://forms.gle/FAxHjVaq6NyZmGJ49>**

(You will be asked for your name and surname, your grade and your school name.)