

An innovative design; the clarity of the proposed solution helps the examiner to understand the applicant's design thinking. The flowchart also helps to explain the function of the prototype. The diagrams are clear however, the candidate does not fully explain how all aspects of the mechanism operate, especially the opening and closing of the door/flap. Where possible, all aspects of the operation of a machine must be



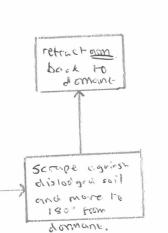
Moon Dust Collector explained.

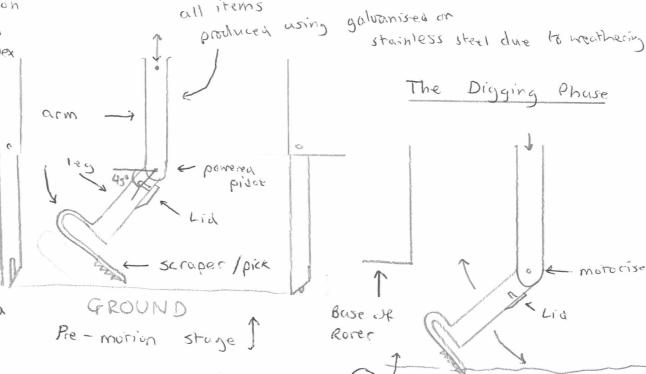
For Section Box this exam I found this question rather intriguing as astronautical technologies have to be simple enough to be about and surine but complex enough to complete it's given task affectively.

For my design lemployed a concept that involved the repository into which the sample is created is built into the collection, tool.

The Algorithm

Essentially the contraption Start open the doors through piread motors and then lower the arm (the appendage of the design that controls height) Then the leg (The notating appendage the both digs and collects makerial) is thin snung down to check how the ground is. once that has happened More leg to 450 & collector initiates its digging phase return 129 to docmant





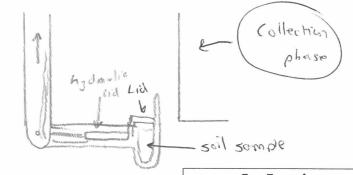
Doment position

GROUND

Digging Phase

The digging phase inois the leg of the contraption repeatedly swinging back and forth into the ground with force provided from the motor on the pirot.

This series to dislodure any of the below moon dust and rock a before it begins collection.



Distort year materia

Collection phose

Ground

With the material now dislockged the contraption makes one tinal swing, being lowered slightly to ensure it collects a full sample. The 'arm then completes this swing boing 180° from it's previous domant position and alid is mored across with hydraulier

	For Examiner use only		
	4	Function and creativity of the 3 concepts	/30
	Section A	Technical knowledge & Reasoning	/1!
		Total for Section A	/4!
	Section B	Functionality of Proposal	/30
		Materials, components and construction	/1!
		Total for Section B	/4!
		Communication	/10
		Total	/100

Name:

Lower

0.770

İs there motion

Initialise

Digging

phase

Ye 5

NOS

School:

Section A or B:

Question Number: