

# Mars Habitat Resource Recycling & Manufacturing System

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**Members:**

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## 1 Problem Definition

### 1.1 Need Statement

During a three-year mission, an eight-person crew would accumulate over 12,000 kg of inorganic waste, or trash, which is a huge problem. If the issue is not addressed as soon as possible, we humans might cause some permanent damage to the environment on Mars.

### 1.2 Goal

Find an efficient and reliable way to recycle and reuse the waste on Mars.

### 1.3 Objectives

Objective	Basis for Measurement	Units
Must be reliable	The endurance of the solution (how many years it can last)	Years
Must not be too expensive	The cost to implement the solution	CAD
Must minimize the emission	The amount of chemical the solution might emit	–
Must be buildable by no more than eight people	Number of people required for the workload	People

Table 1: Objectives and Measurement Basis

## 1.4 Constraints

- Solutions must be completed within one week.
- Solutions must not burn anything without proper collection on Mars.
- Solutions must not cost too much money.
- Solutions must not be too complicated to implement.

## Works Cited

- cite here