VCE Systems Engineering

**System Description:** Written Description

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| --- | --- |
|  | **Things to consider in description;**  Identify the important parts of the system.  List the energy, material and information requirements of the system.  Describe the desired result from the system.  Detail the important steps in the operation and function of the system including the energy, force and motion transformations at each step. |

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**System Description:** Subsystems Block Diagram

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**System Description:** IPOC Diagram

IPOC Diagram:

INPUT

Electricity

Laptop locked/unlocked state info

RFID signal

OUTPUT

Unlock laptop via mechanical motion

Heat due to fri

PROCESS

Conversion of energy types

Send RFID entity to server

frf

fffffrrr

CONTROL

Is the RFID entity allowed to access the laptop?

What goes into the system. This includes energy, raw materials and data/information.

Includes what is expected of the system is to do or produce. Some outputs maybe undesirable in the form of waste energy.

Anything that can influence, modify or change the output result of the system.

FEEDBACK LOOP

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**System Description:** Flow Diagram