Robots:

Sequential Execution of Instructions

- © Every command should be executed in order in which it is listed in the **program.**
- That is called sequential execution of the program.

Data Representation:

STORING INFORMATION IN A COMPUTER

Computers are used to store different types of information including

numbers
 1, 45, 7.3
 characters
 hello, total, 4R
 graphics
 sound

These are stored using **on** and **off** pulses of electricity.

These on and off pulses are the computers own language called **Machine Code**.

The **on** and **off** pulses are easily represented by **1** and **0** which are called **binary digits or bits**. 0 and **1** are called binary digits or bits.

Integers - Positive numbers

Numbers are stored using 8 binary digits.

Decimal number	Binary number
0	00000000
1	0000001
2	0000010
3	0000011
4	00000100
5	00000101
6	00000110
7	00000111
8	00001000

A binary number should be written using 8 bits.

Understanding binary numbers

In everyday life 10 decimal numbers are used.

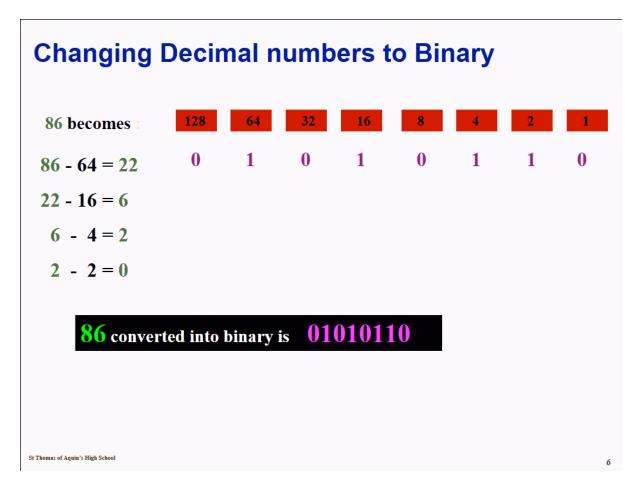
The base of binary number system is 2.

Changing Decimal numbers to Binary

$$4 - 4 = 0$$

The base of decimal number system is 10.

(Character	ASCII Code
A	1	01000001
а	l	01100001
9	6	10010100



A binary number should be written using 8 bits.

Text

- text is a symbol or letter on the keyboard.
- text can be represented using ASCII, American Standard Code for Information
 Interchange. ASCII uses 8 bits per character, giving a possible 256 different characters
- ASCII uses 8 bits to represent each character