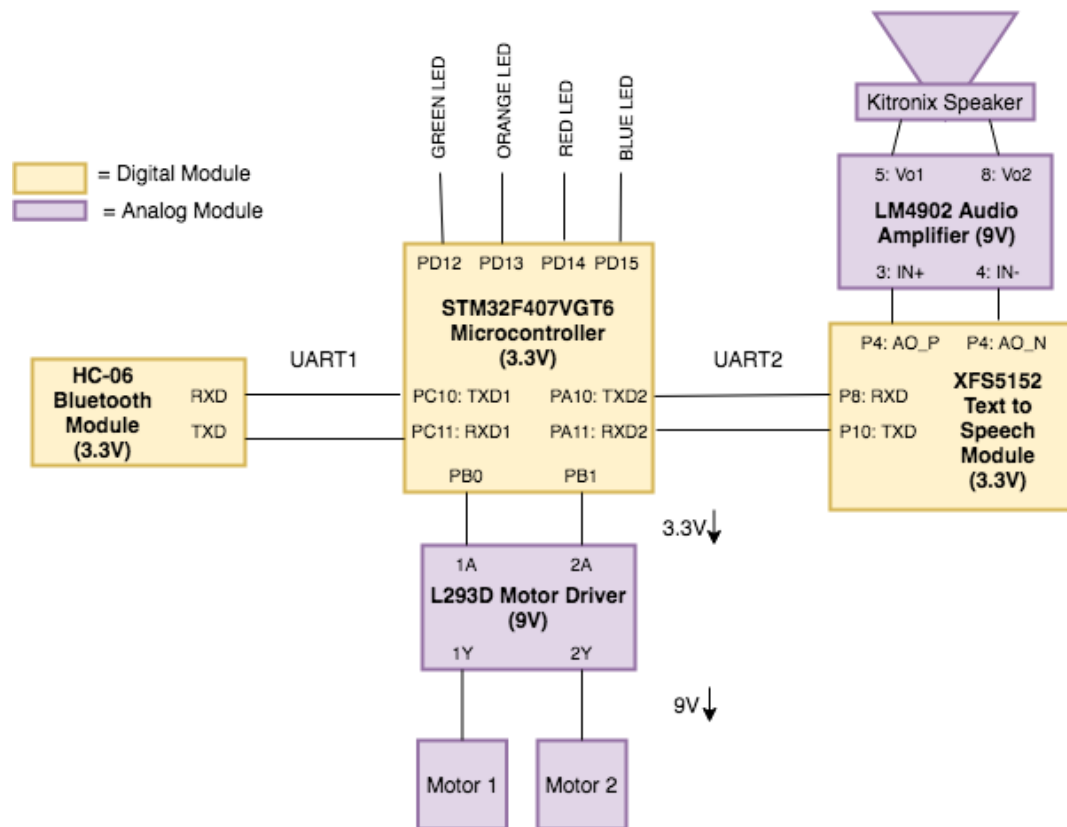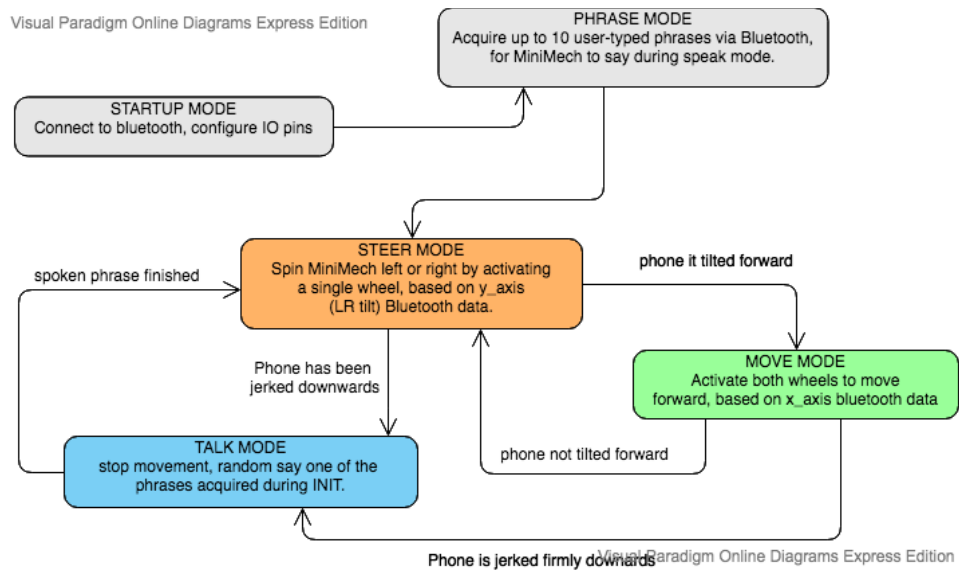# ELEC3607 Assignment: Milestone 2

(This file is also included in the assignment.zip file, where there is also an MM_README.txt file that explains the code in a little more detail.)

Block Level Diagram of Devices Hardware Organisation:

**MinMech Hardware Layout**

## UML State Machine Diagram of Firmware Operation:

**PHRASE MODE**
Acquire up to 10 user-typed phrases via Bluetooth, for MiniMech to say during speak mode.

**STARTUP MODE**
Connect to bluetooth, configure IO pins

**STEER MODE**
Spin MiniMech left or right by activating a single wheel, based on y_axis (LR tilt) Bluetooth data.

spoken phrase finished

phone it tilted forward

Phone has been jerked downwards

**MOVE MODE**
Activate both wheels to move forward, based on x_axis bluetooth data

**TALK MODE**
stop movement, random say one of the phrases acquired during INIT.

phone not tilted forward

Phone is jerked firmly downwards

## Extra: Enclosure design, to help understand system features:

Left wheel: Motorised

Back wheel: not motorized, freely swivels

Right wheel: Motorised