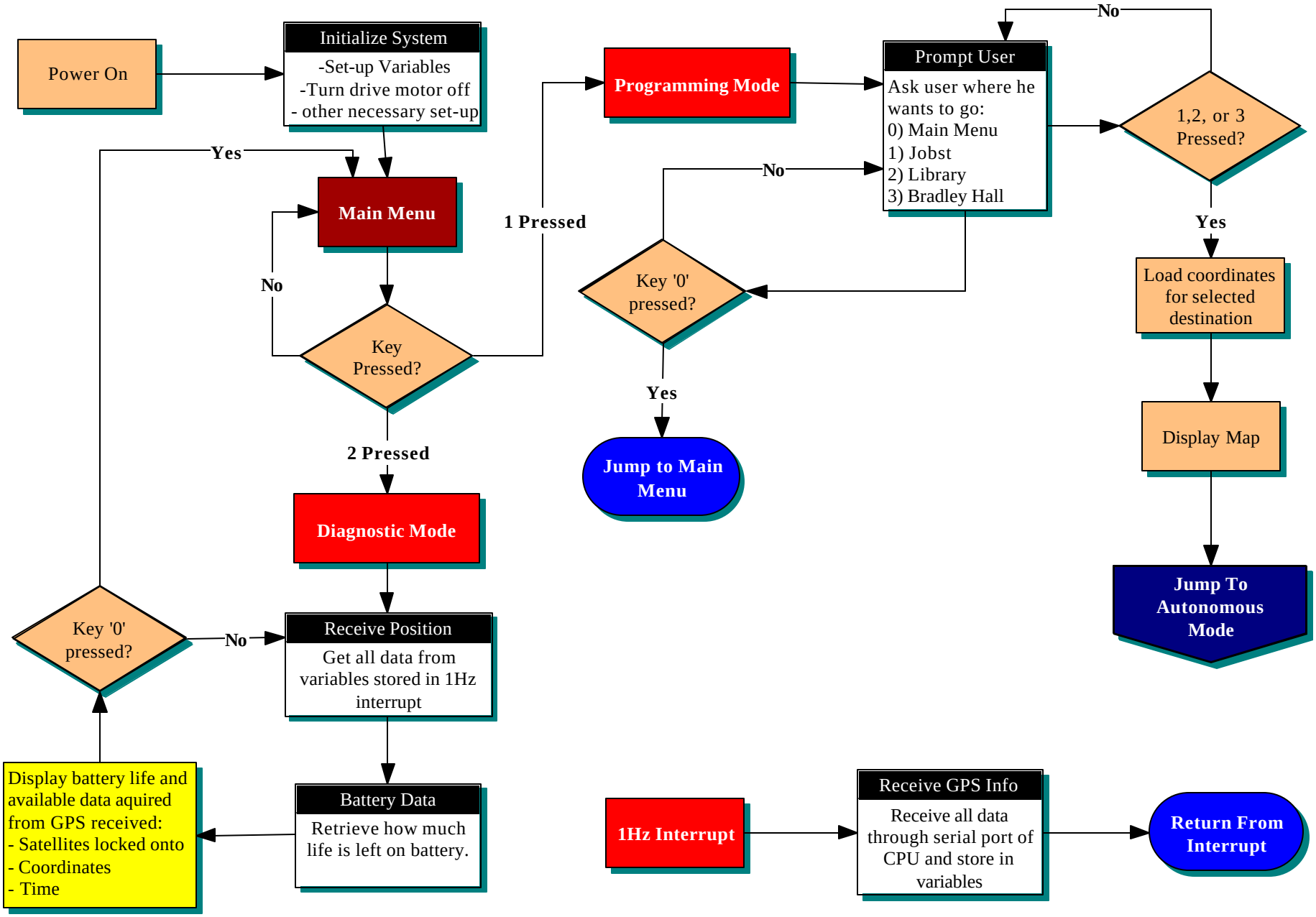
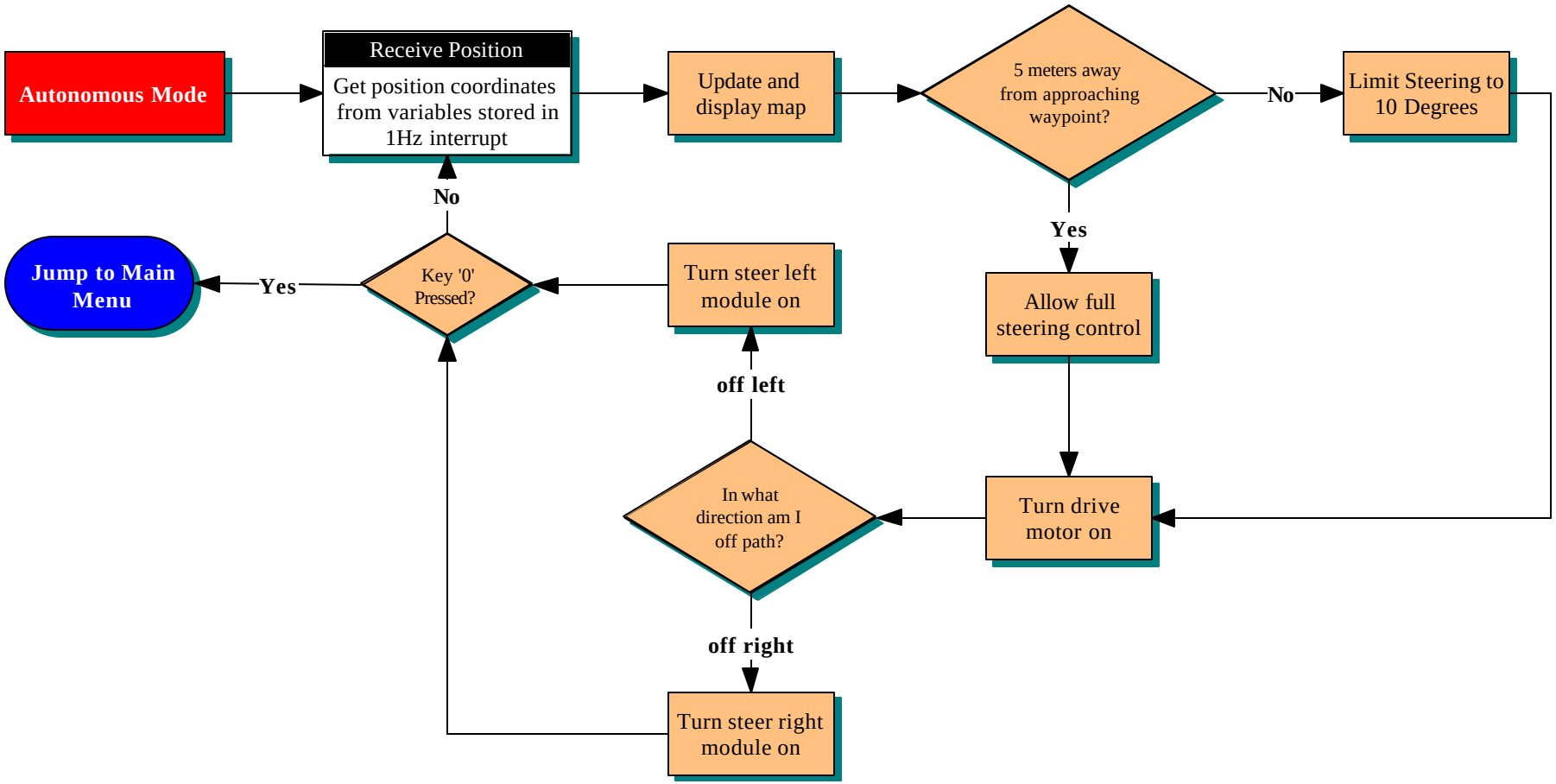

Power On
Initialize System
-Set-up Variables
-Turn drive motor off
- other necessary set-up
Yes
Main Menu
No
Key Pressed?
1 Pressed
2 Pressed
Diagnostic Mode
Key '0' pressed?
No
Receive Position
Get all data from variables stored in 1Hz interrupt
Battery Data
Retrieve how much life is left on battery.
Display battery life and available data aquired from GPS received:
- Satellites locked onto
- Coordinates
- Time
Programming Mode
Prompt User
Ask user where he wants to go:
0) Main Menu
1) Jobst
2) Library
3) Bradley Hall
No
1,2, or 3 Pressed?
No
Key '0' pressed?
Yes
Jump to Main Menu
Yes
Load coordinates for selected destination
Display Map
Jump To Autonomous Mode
1Hz Interrupt
Receive GPS Info
Receive all data through serial port of CPU and store in variables
Return From Interrupt


Autonomous Mode
Receive Position
Get position coordinates from variables stored in 1Hz interrupt
Update and display map
5 meters away from approaching waypoint?
No
Limit Steering to 10 Degrees
Yes
Allow full steering control
Turn drive motor on
In what direction am I off path?
off left
Turn steer left module on
off right
Turn steer right module on
Key '0' Pressed?
No
Yes
Jump to Main Menu