



First Search



```
graph LR; A([First Search]) --> B([1. If a wall is detected (within 15cm), stop all motors]); A --> C([2. If motor Encodervalue exceeds 5000 then it looks for a far-away wall and approaches it then resets the encoder and looks again for the IR]);
```

The 'First Search' node is connected to two sub-steps. The first step describes a wall detection condition, and the second step describes an encoder value condition leading to a search reset.

1. If a wall is detected (within 15cm), stop all motors

2. If motor Encodervalue exceeds 5000 then it looks for a far-away wall and approaches it then resets the encoder and looks again for the IR

Second Search



```
graph LR; D([Second Search]) --> E([1. If it sees wall (within 15cm) then it stops]); D --> F([2. If the motor endcoder value exceeds 5000 then it stops because it is unable to find the IR]);
```

The 'Second Search' node is connected to two sub-steps. The first step describes a wall detection condition, and the second step describes an encoder value condition leading to a stop.

1. If it sees wall (within 15cm) then it stops

2. If the motor endcoder value exceeds 5000 then it stops because it is unable to find the IR