SCHEDULE PROPOSAL

- AUGUST 1st – Team process alignment
- AUGUST 7th – MOCK course mapped
- AUGUST 14th – AVOIDANCE
- AUGUST 21st – RECOVERY
- AUGUST 25th – SUBMIT VIDEO

COURSE NAVIGATION APPROACH

ASSUME NO ERRORS

- Assume no obstacles
- Create mappings for

- Distance and Speed to travel relative to where you are
- Turn points with angles

AVOID ON DETECT

- Design obstacle avoidance
- Create mappings for

- Detect and Correct with angles and resume speed

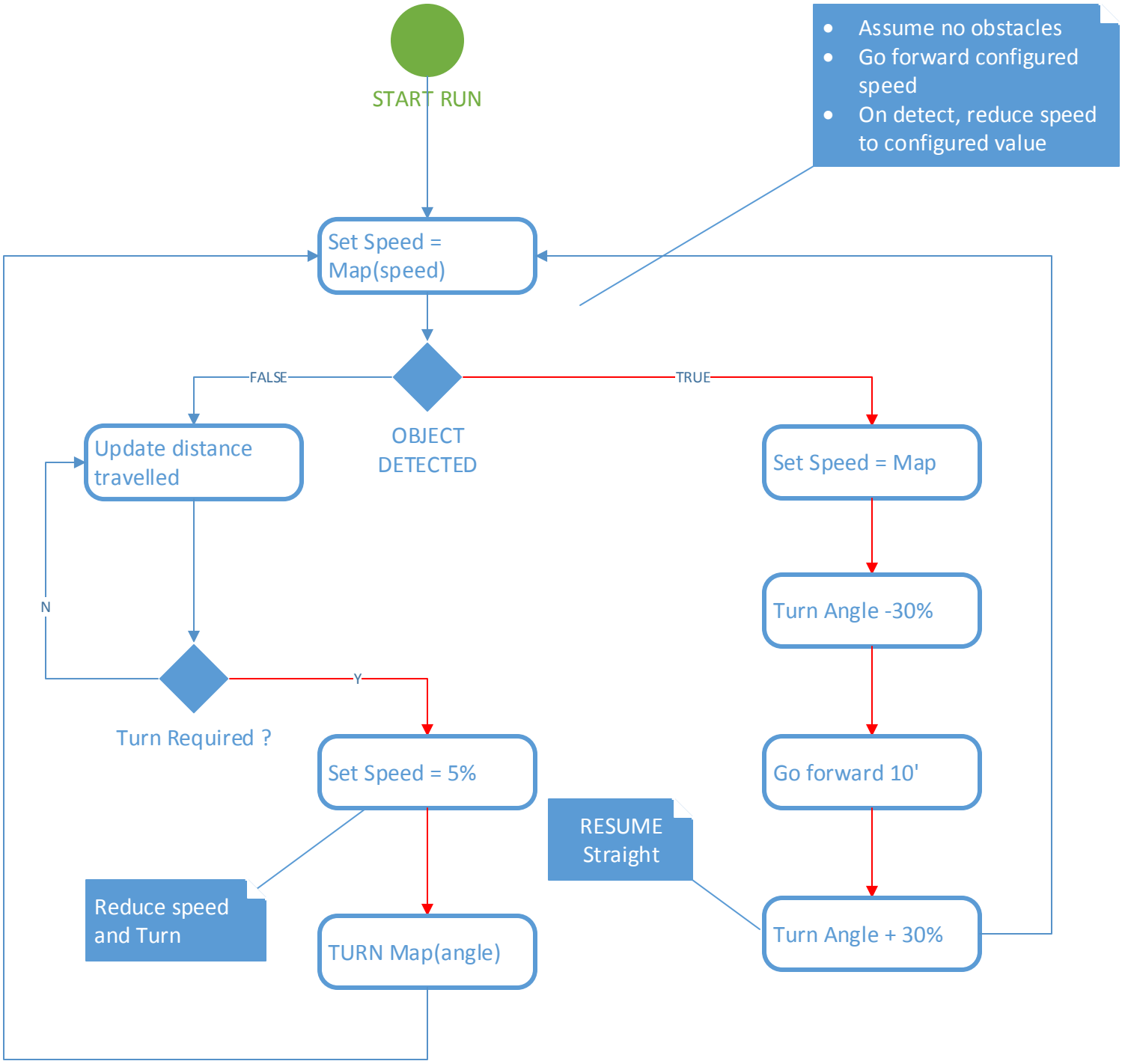
RECOVERY

- Backup
- Reorientation
- Resume

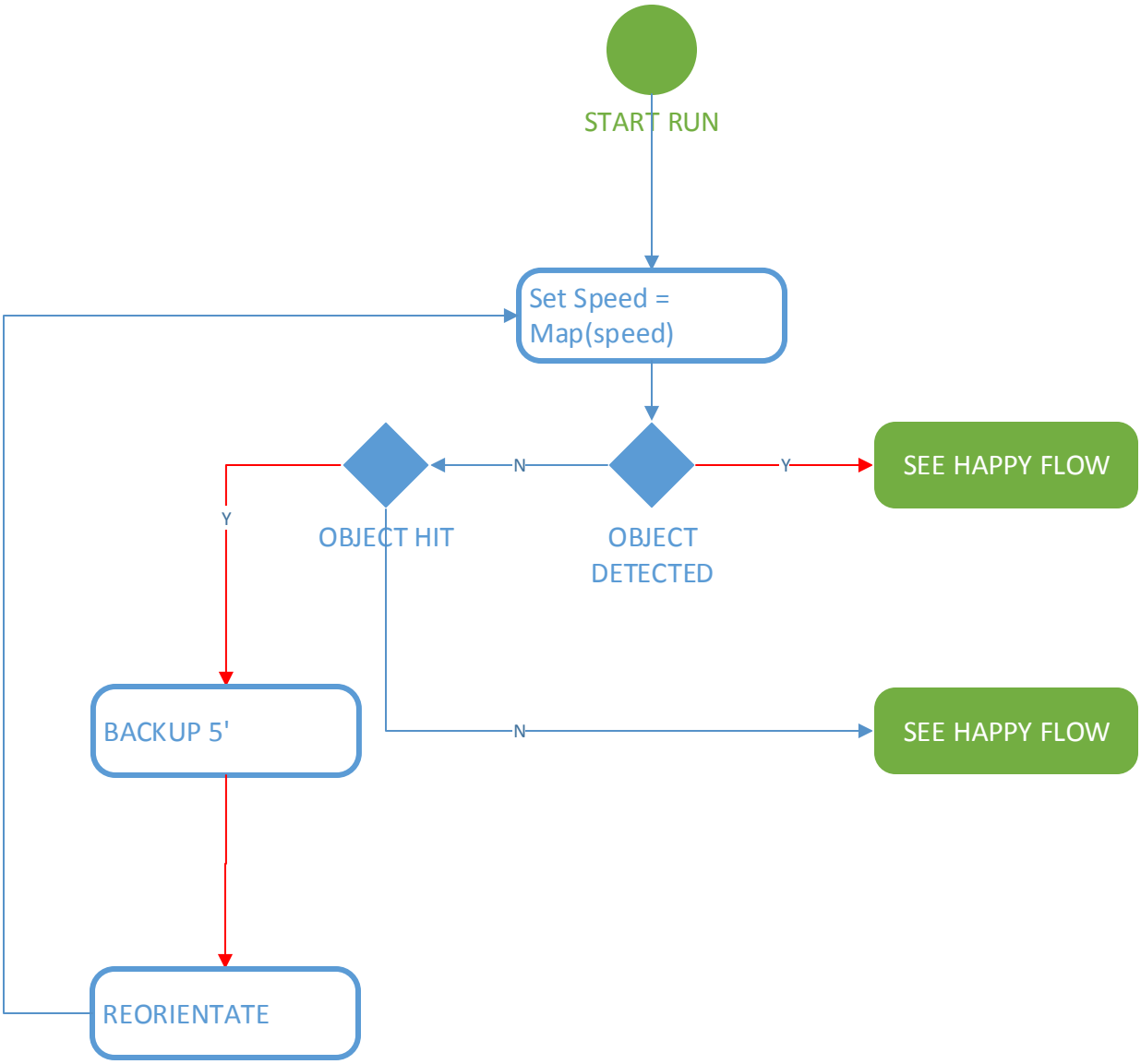
TEACH AND LEARN

- MONITOR Wheel Slipage
- TRAIN using “most likely” predictions

HAPPY PATH = NO HIT



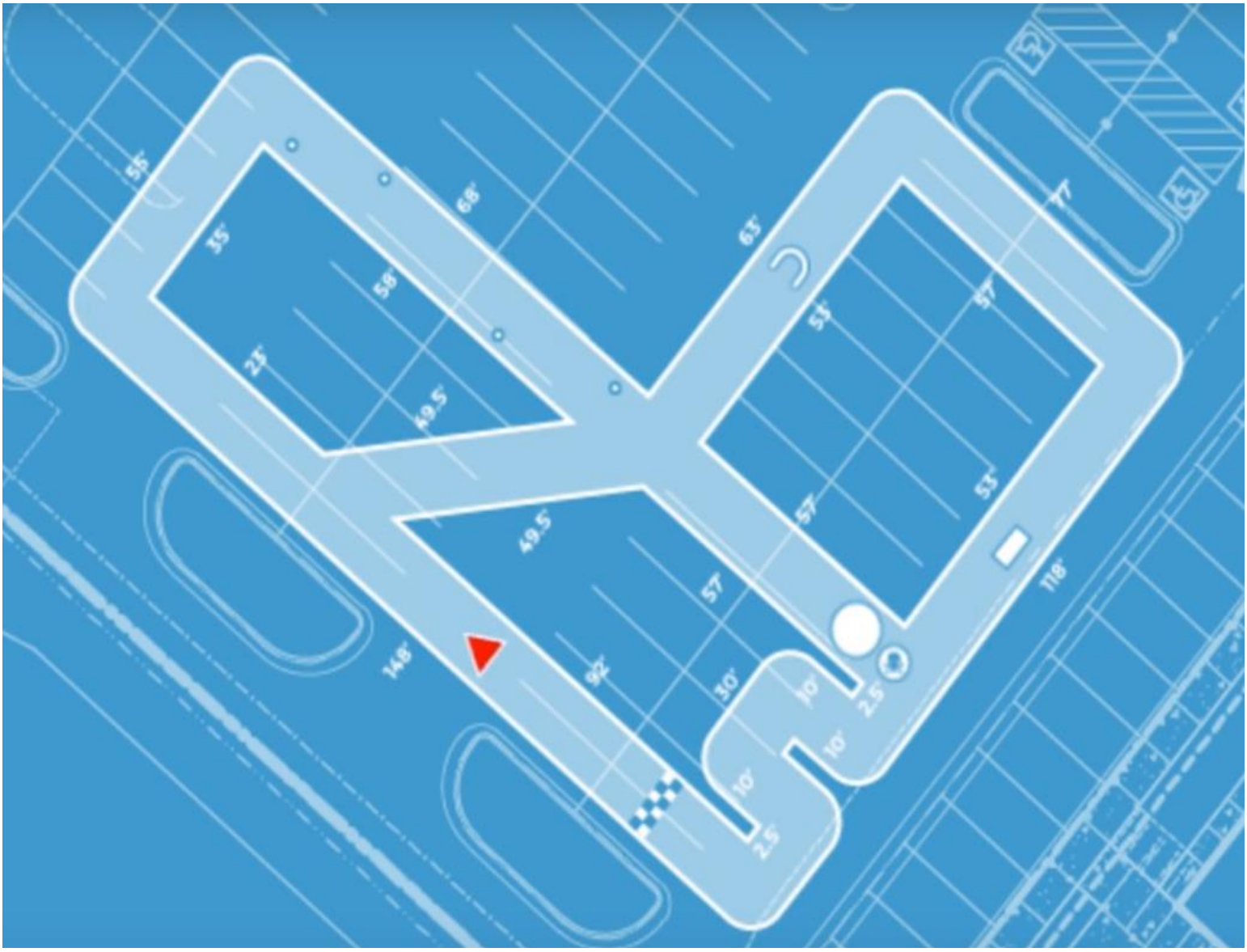
HIT RECOVERY



2016 Sparkfun Autonomous Vehicle Course

```
#define LEG1 120
#define LEG2 45
#define LEG3 58
#define LEG4 53
#define LEG5 66
#define LEG6 63
#define LEG7 8
#define LEG8 8
#define LEG9 8
```

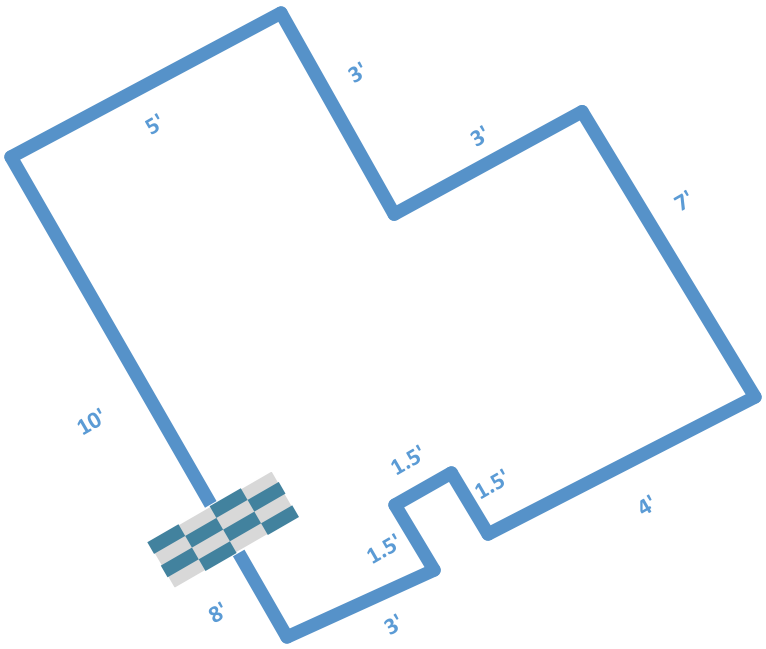
APPROXIMATE DISTANCES from start until turn is made



Scaled down map

```
#define LEG1 120
#define LEG2 45
#define LEG3 58
#define LEG4 53
#define LEG5 66
#define LEG6 63
#define LEG7 8
#define LEG8 8
#define LEG9 8
```

Scaled down version



TEST PLAN APPROACH

8-13	Basic Course Navigation
8-17	Dynamic RPM Adjustment
8-20	LIDAR Input and Adjustment
8-24	Backup and Realign
8-27	Recovery
8-31	TEST New course

Fix Drift Issues

Distance

Autonomous Vehicle Schematic