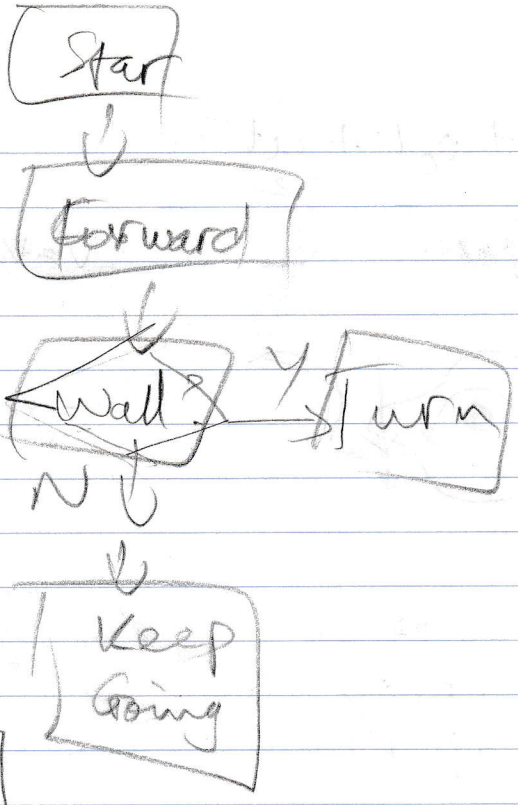

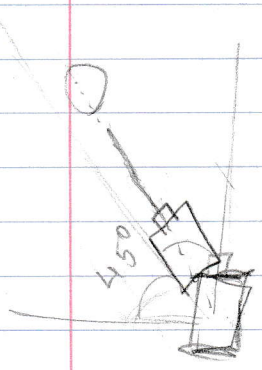

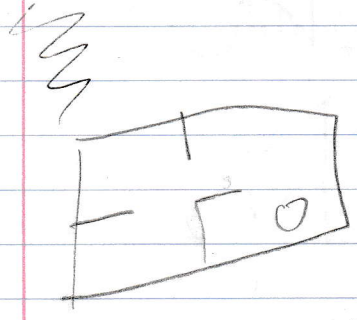

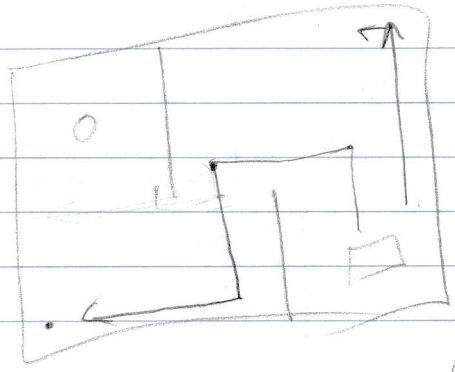

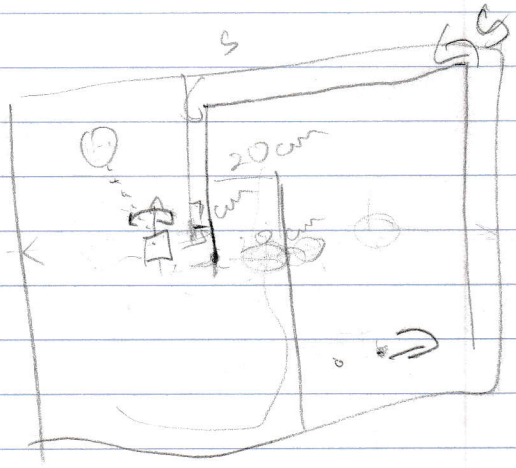

180

90

180

119

- Finding the candle (0)
- Candle found (1)
- Extinguishing the candle (2)
- Candle has been put out (3)
- Going back (4)
- Back (5)

-> Main.ino
-> LCD_Display.h
-> Flame_Sensors.h
-> Navigation.h
-> Drive_Sensors.h
->

0: - Push button to start
- Use red sensor (4x45°) to scan for fire
(scan whenever there's change in motions)
- Hug the walls
- Turn & scan
- Fire detected

1: - Record the degree of the VEX pot
- Turn the robot about that degree (relative to the IMU)
- Go straight for a certain time
- Use red sensor to scan for the fire
- Slowly turn the robot according to the scan zone until the black sensor picks up the fire
- Stop when sonar is about a certain

distance
2: - move the black sensor up (or down) until it picks up the fire
- record the angle of the IMU
- Calculate the height of the fire based on the angle of IMU & fixed height of it.
- Blow the fan
- ~~Move the black sensor to scan for the fire to check if it's been put out.~~
3: - Find a wall & hug it
4: - hug the wall
- Go back
- Compare current (X, Y) position with the original one
5: - Dance around.