

STATE MACHINES

Dishwasher

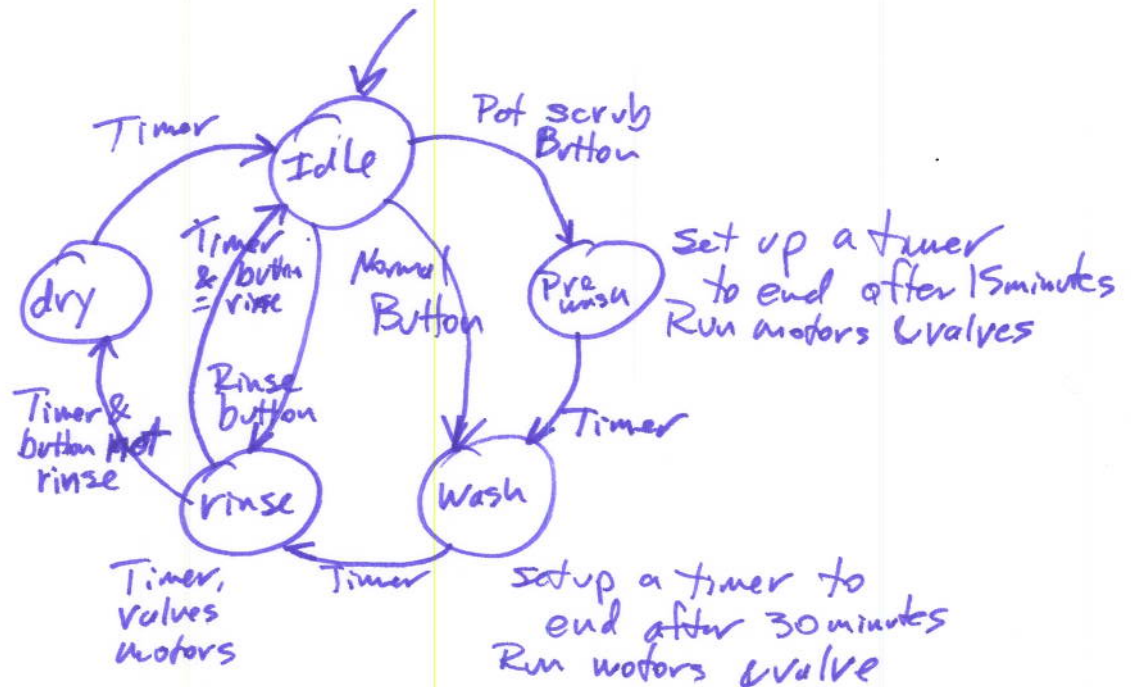
3 modes: Potscrubber:

Pre wash
Wash
rinse
dry
Wash
rinse
dry

rinse only:
rinse

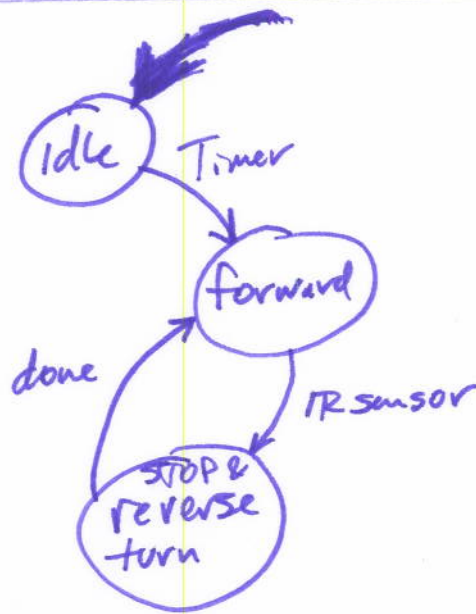
Normal:

State



Robot: Roaming & cliff avoiding ②
 move forward until a cliff is detected
 (IR sensor)
 when a cliff is found, stop, reverse, turn
 & restart
 sit idle for 5 seconds when powered on,
 then run forever

State diagram



Cliff → turn 180°
 Wall → turn 90°
 Backup

DaNI

Reverse: Hard coded time (timer)
 Hard code for distance (encoder)

ultrasonic sensor
 points to front
 Avoid walls as
 well, 10cm wall
 Stop, reverse, turn

Turn: Hard coded time (timer)
 Hard code for distance (encoder)

Software State
Machine

ECGR 4161

8/2/12

③

1) Move forward unless

- a) USound sees a wall within 10cm
- b) IR detects a cliff.

2) if wall, back up 30cm, turn 90° , continue
if cliff, back up 50cm, turn 180° , continue

Note: if while turning, you detect a cliff, do the back-up task.

