

- 1) Create a state transition diagram for a 3 speed heating/cooling (HVAC) system. Assume the desired temperature and actual temperatures are inputs, both heating and cooling is provided, the system is off if the two temperatures are within 2 degrees, runs at low if they are within 5 degrees, medium if they are within 9 degrees and high if they are greater than 9 degrees apart. The outputs are fan speed (in binary) (Off, Low, Med, High), heat and cool. 30 pts

- 2) Code and simulate your HVAC system. Use a fixed Desired temperature of 25°C. Ramp the Actual temperature from 10°C to 40°C. 70 pts
- code(x2), RTL, state diagram, simulation
Include your states in the simulation

