2DX4: Microprocessor System
PreLab 6

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As a future member of the engineering profession, the student is responsible for performing the required work in an honest manner, without plagiarism and cheating. Submitting this work with my name and student number is a statement and understanding that this work is our own and adheres to the Academic Integrity Policy of McMaster University and the Code of Conduct of the Professional Engineers of Ontario. Submitted by **[Junbo Wang wangj430 400249823]**

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1.

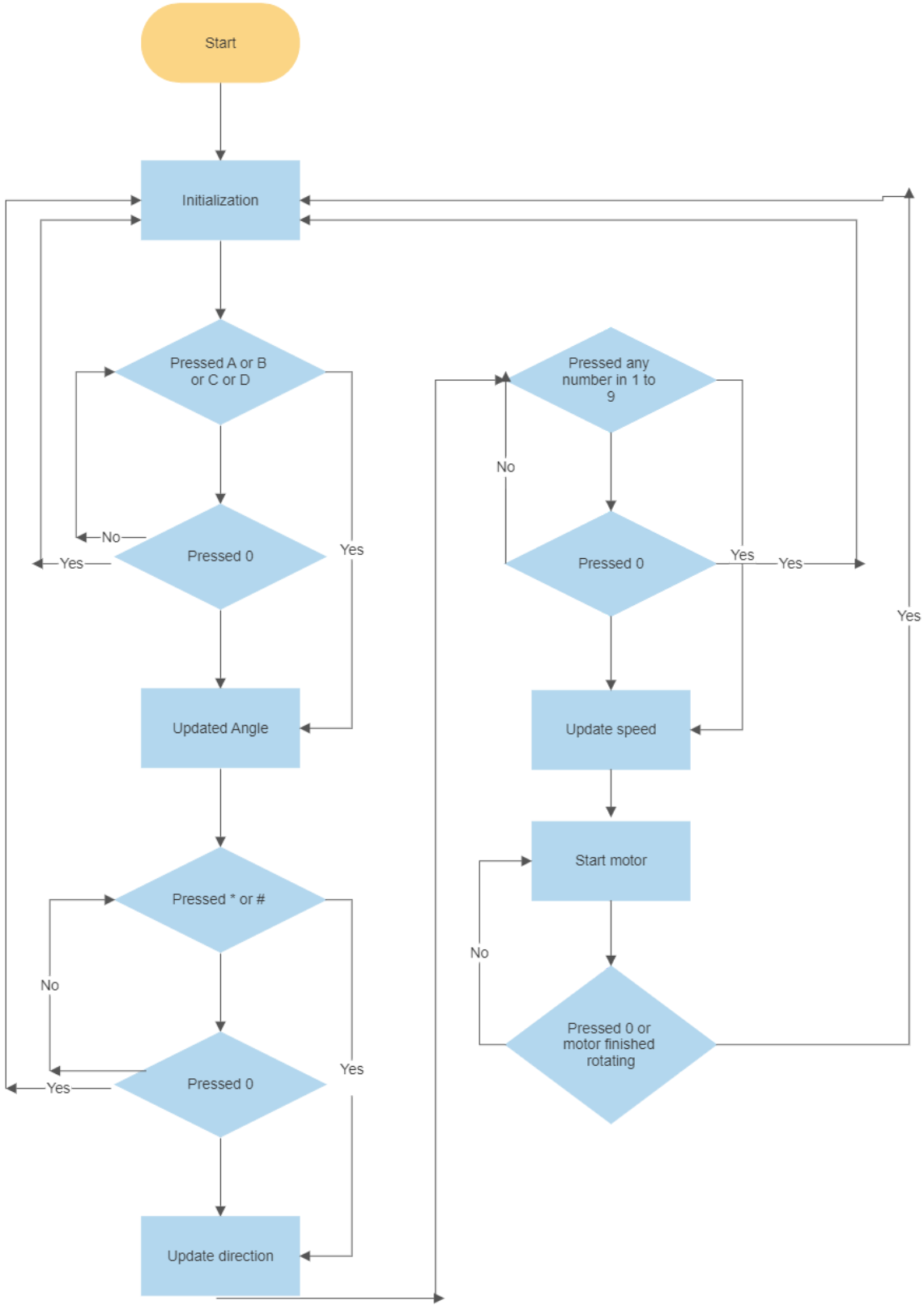
36 steps/rotation * 10 ms/steps = 360 ms/ rotation

Motor speed = 1 rotations / 360 ms/rotation = 1/360 rotations / ms = 166.67 RPM

2.

Delay per step = 1/200 rotations/step * 1/60 min/rotations = 1/12000 min/step = 60*10^3/12000 ms/step = 5 ms/step.

3.


Start
Initialization
Pressed A or B or C or D
No
Pressed 0
Yes
Yes
Updated Angle
Pressed * or #
No
Pressed 0
Yes
Yes
Update direction
Pressed any number in 1 to 9
No
Pressed 0
Yes
Yes
Yes
Update speed
Start motor
No
Pressed 0 or motor finished rotating
Yes