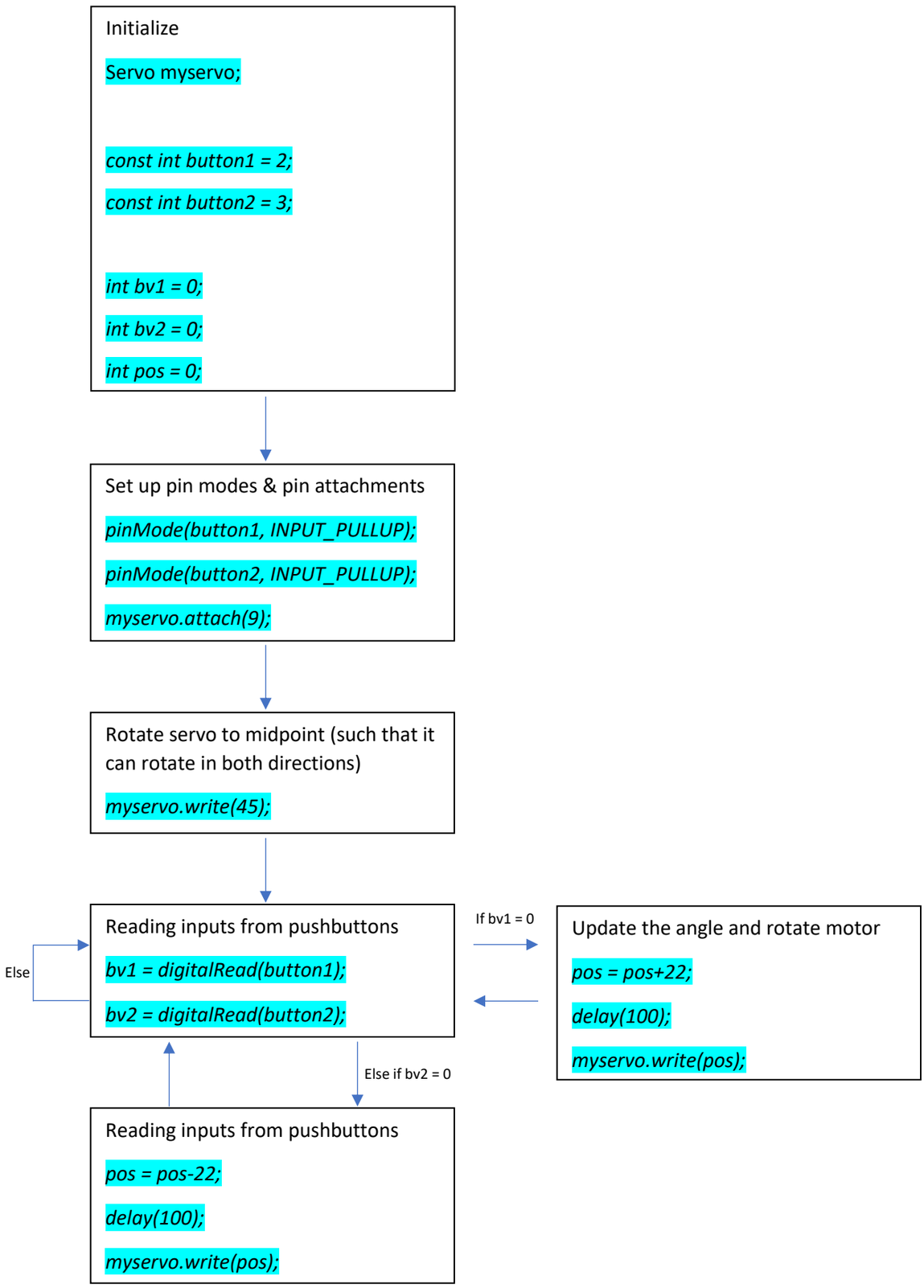
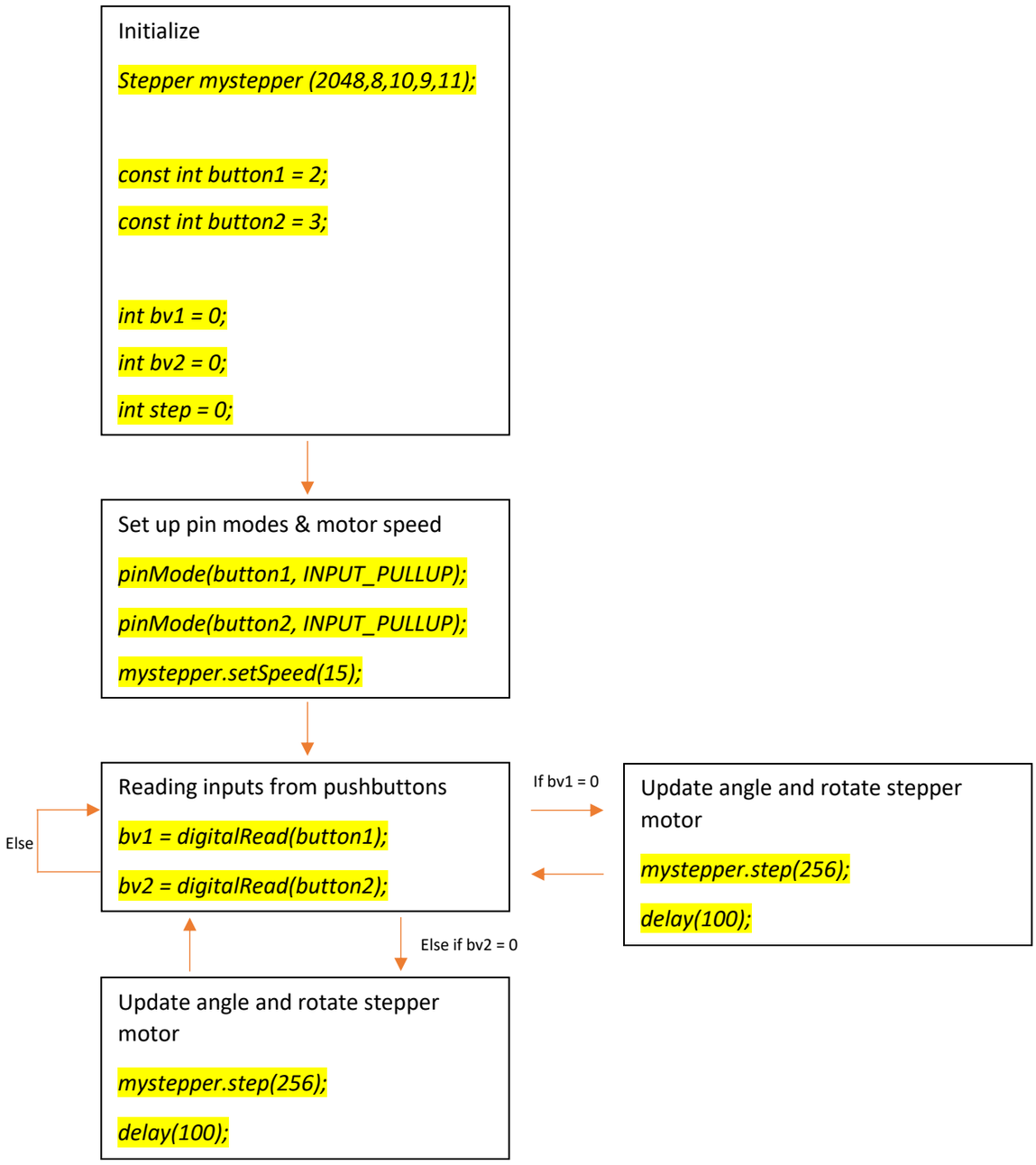

Initialize
Servo myservo;
const int button1 = 2;
const int button2 = 3;
int bv1 = 0;
int bv2 = 0;
int pos = 0;
Set up pin modes & pin attachments
pinMode(button1, INPUT_PULLUP);
pinMode(button2, INPUT_PULLUP);
myservo.attach(9);
Rotate servo to midpoint (such that it can rotate in both directions)
myservo.write(45);
Reading inputs from pushbuttons
bv1 = digitalRead(button1);
bv2 = digitalRead(button2);
Else
If bv1 = 0
Update the angle and rotate motor
pos = pos+22;
delay(100);
myservo.write(pos);
Else if bv2 = 0
Reading inputs from pushbuttons
pos = pos-22;
delay(100);
myservo.write(pos);


Initialize
Stepper mystepper (2048,8,10,9,11);
const int button1 = 2;
const int button2 = 3;
int bv1 = 0;
int bv2 = 0;
int step = 0;
Set up pin modes & motor speed
pinMode(button1, INPUT_PULLUP);
pinMode(button2, INPUT_PULLUP);
mystepper.setSpeed(15);
Reading inputs from pushbuttons
bv1 = digitalRead(button1);
bv2 = digitalRead(button2);
Else
If bv1 = 0
Update angle and rotate stepper motor
mystepper.step(256);
delay(100);
Else if bv2 = 0
Update angle and rotate stepper motor
mystepper.step(256);
delay(100);


Initialize
Stepper mystepper(2048,8,10,9,11);
Servo myservo;
const int xAxis = A0;
const int yAxis = A1;
int step = 0;
int pos = 0;
int range = 12;
int threshold = range / 4;
int center = range / 2;
int rpm = 0;
Self-defined function for reading signals from joystick
int readAxis(int thisAxis)
{
int reading = analogRead(thisAxis);
reading = map(reading, 0, 1023, 0, range);
int distance = reading - center;
if (abs(distance) < threshold)
{
distance = 0;
}
return distance;
}
Set up pin attachment for servo motor, rotate it to midpoint (such that it can rotate in both directions), and set up motor speed
mystepper.setSpeed(15);
myservo.attach(7);
myservo.write(90);
Reading inputs from joystick
int xReading = readAxis(A0);
int yReading = readAxis(A1);
If xReading > 0
If xReading > 0
Update angle and rotate servo motor
pos = pos+22;
delay(100);
myservo.write(pos);
Update angle and rotate servo motor
pos = pos-22;
delay(100);
myservo.write(pos);
Else
While
yReading ≤ 0
While
yReading > 0
yReading < 0
yReading ≥ 0
Set stepper motor speed
rpm = map(yReading, 0, 6, 0, 17);
mystepper.setSpeed(rpm);
Set stepper motor speed
rpm = map(yReading, 0, -6, 0, 17);
mystepper.setSpeed(rpm);
Rotate stepper motor
mystepper.step(30);
Rotate stepper motor
mystepper.step(-30);
Update reading input from joystick
yReading = readAxis(A1);
Update reading input from joystick
yReading = readAxis(A1);