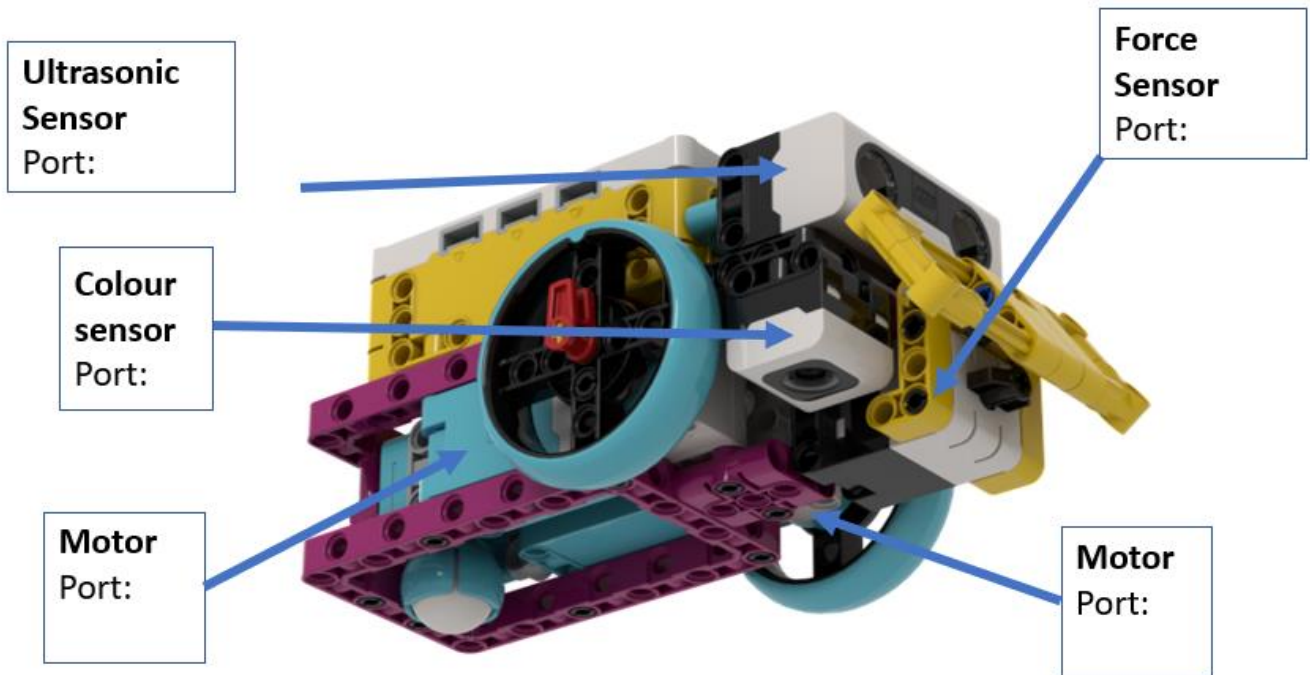


PLAN YOUR PORTS



Basic drive square - loop

```

when program starts
  set movement motors to D+C
  set movement speed to 20 %
  repeat 4
    move straight: 0 for 360 degrees
    move right: 100 for 130 degrees
  stop and exit program
  
```

Line follow - reflected light

```

when program starts
  set movement motors to D+C
  forever
    if reflection > 80 % ?
      start moving at 30 0 % power
    else
      start moving at 0 30 % power
  
```

ULTRASONIC SENSOR

Traffic Jam

The code starts with a 'when program starts' block, followed by 'set movement motors to D+C'. A 'forever' loop contains an 'if' statement: 'if A distance in cm > 20 then' followed by 'start moving straight: 0 at 50 % speed', and an 'else' block followed by 'start moving straight: 0 at -15 % speed'.

Obstacle Avoidance

The code starts with a 'when program starts' block, followed by 'set movement motors to D+C'. A 'forever' loop contains 'start moving straight: 0 at 50 % speed', followed by a 'wait until' block: 'wait until A distance in cm < 30', and then a 'move' block: 'move right: 100 for 0.5 seconds at 50 % speed'.

SUMO – Basic

The code starts with a 'when program starts' block, followed by 'set movement motors to D+C'. A 'forever' loop contains: 'start moving right: 100 at 40 % power', 'wait until A is closer than 80 cm?', 'start moving straight: 0 at 100 % power', 'wait until E reflection > 30 %?', and 'move straight: 0 for 1 seconds at -100 % speed'.

SUMO – nested loop

The code starts with a 'when program starts' block, followed by 'set movement motors to D+C' and 'wait 3 seconds'. A 'forever' loop contains an 'if' statement: 'if E reflection > 30 %? then' followed by 'turn on', 'A light up', and 'move straight: 0 for 1 seconds at -100 % speed'. An 'else' block contains an 'if' statement: 'if A is closer than 80 cm? then' followed by 'A light up', 'start moving straight: 0 at 100 % power', and an 'else' block followed by 'A light up' and 'start moving right: 100 at 40 % power'.