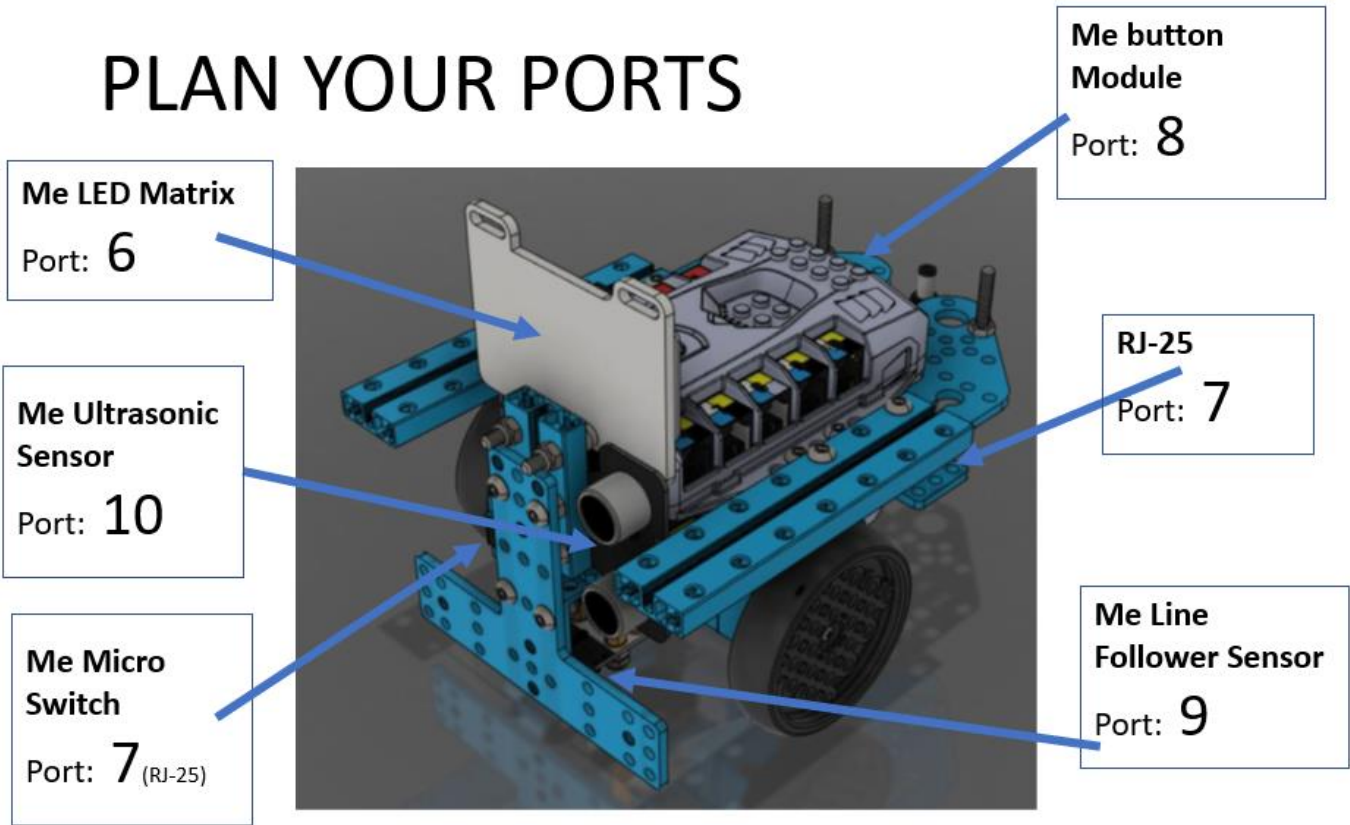


PLAN YOUR PORTS



Basic drive square - loop

```

when mBot Ranger(Auriga) starts up
repeat 4
  move forward at power 40 % for 0.7 secs
  turn right at power 15 % for 0.7 secs
  
```

Line follow - reflected light

```

when mBot Ranger(Auriga) starts up
forever
  if line follower sensor port9 detects left being black ? then
    left wheel turns at power 3 %, right wheel at power 21 %
  if line follower sensor port9 detects right being black ? then
    left wheel turns at power 21 %, right wheel at power 3 %
  
```

ULTRASONIC SENSOR

Traffic Jam

```

when mBot Ranger(Auriga) starts up
  forever
    if ultrasonic sensor port10 distance > 20 then
      forward at power 50 %
    else
      backward at power 15 %
  
```

Obstacle Avoidance

```

when mBot Ranger(Auriga) starts up
  forever
    forward at power 50 %
    wait until ultrasonic sensor port10 distance < 30
    turn left at power 25 % for 1 secs
  
```

SUMO – Basic

```

when mBot Ranger(Auriga) starts up
  forever
    turn left at power 25 %
    wait until ultrasonic sensor port10 distance < 50
    forward at power 50 %
    wait until not line follower sensor port9 detects all being black ?
    move backward at power 50 % for 1 secs
  
```

SUMO – nested loop

```

when mBot Ranger(Auriga) starts up
  wait until button port8 button3 pressed?
  wait 3 seconds
  forever
    if not line follower sensor port9 detects all being black ? then
      all lights up with color [white]
      LED panel port6 shows image [image]
      move backward at power 50 % for 1 secs
    else
      if ultrasonic sensor port10 distance < 50 then
        all lights up with color [red]
        LED panel port6 shows image [image]
        left wheel turns at power 75 %, right wheel at power 65 %
      else
        all lights up with color [green]
        LED panel port6 shows image [image]
        turn left at power 15 %
    
```