

# Event Qbot Programming with Processing

- Start Arduino
- Select File-Examples-Firmata-Standard Firmata
- Plug in Qbot
- Load Standard Firmata onto Qbot
- Start Processing
- Open the File EventQBot with Processing
- Run Program (Click the 'triangle'). Press the w and a key to move the QBot



# Setup Qbot in Processing

```
// Make a qbot object
QBot qbot;

void setup() {
    size(640, 480);
    qbot = new QBot(this, 1);
}
```

# Programming Events: In draw()

```
// Key control events
if (keyPressed) {
  // w key for forward
  if (key == 'w') {
    qbot.forward(100);
  }
  // a key for left
  if (key == 'a') {
    qbot.left(100);
  }
}
```

# Goal: Set s and z keys

- s key: QBot turns right
- z key: Qbot goes backwards

```
// s key for right
if (key == 's') {
    qbot.right(100);
}
// z key for backward
if (key == 'z') {
    qbot.backward(100);
}
```

# Selected Functions Available:

```
qbot.forward(power);
```

```
qbot.backward(power);
```

```
qbot.left(power);
```

```
qbot.right(power);
```

```
qbot.stopMotors();
```

```
qbot.motorA(power);
```

```
qbot.motorB(power);
```

```
delay(time);
```