Start

├─ Setup

│ ├─ Initialize Serial communication

│ ├─ Initialize Bluetooth Serial communication

│ ├─ Initialize pins for motor control

│ └─ Initialize MPU6050 accelerometer

│

├─ Loop

│ ├─ Read data from Bluetooth Serial

│ │ └─ If data available

│ │ └─ Store received data in bt\_data variable

│ │

│ ├─ If bt\_data is 'f'

│ │ ├─ Call forword() function

│ │ └─ Set Speed to 180

│ │

│ ├─ If bt\_data is 'b'

│ │ ├─ Call backword() function

│ │ └─ Set Speed to 180

│ │

│ ├─ If bt\_data is 'l'

│ │ ├─ Call turnLeft() function

│ │ └─ Set Speed to 250

│ │

│ ├─ If bt\_data is 'r'

│ │ ├─ Call turnRight() function

│ │ └─ Set Speed to 250

│ │

│ ├─ If bt\_data is 's'

│ │ └─ Call Stop() function

│ │

│ ├─ Set motor speeds using analogWrite()

│ ├─ Delay for 50 milliseconds

│ └─ Read accelerometer data

│ ├─ If AcX < 60 and flag is 0

│ │ ├─ Set flag to 1

│ │ └─ Send 'f' over Bluetooth Serial

│ │

│ ├─ If AcX > 130 and flag is 0

│ │ ├─ Set flag to 1

│ │ └─ Send 'b' over Bluetooth Serial

│ │

│ ├─ If AcY < 60 and flag is 0

│ │ ├─ Set flag to 1

│ │ └─ Send 'l' over Bluetooth Serial

│ │

│ ├─ If AcY > 130 and flag is 0

│ │ ├─ Set flag to 1

│ │ └─ Send 'r' over Bluetooth Serial

│ │

│ └─ If AcX and AcY are within a range and flag is 1

│ ├─ Set flag to 0

│ └─ Send 's' over Bluetooth Serial

│

└─ Read\_accelerometer

├─ Read accelerometer data from MPU6050

├─ Map accelerometer values to a range

├─ Print AcX, AcY, AcZ values

└─ Return to Loop

End