SITE 1101 - Project 3: Robotics

Team 3

For our robotics project, we assembled an autonomous robot using the LEGO Mindstorms EV3 system. This involved building the base educator model and adding a gyro sensor for precise navigation, along with a custom-engineered marker holder. On the development side, we first planned a specific artwork and then used the MakeCode JavaScript editor to program the robot's pathing. We focused on managing motor speeds and sensor feedback to ensure the robot could accurately recreate our sketch on an A1-sized surface. We documented the entire construction and testing process in a narrated video.

Team Member	**Contribution (%)**	**What was done?**
Farhad Aliyev (Leader)	32.5%	- Organizing project - Helped in writing code to Huseyn - Editing whole
Faiq Tahmazov	32.5%	- Helped in laboratory work - Helped editing of video - Directed outro video for edit
Huseyn Khalilov	35%	- Builded robot and write main code - Helped little in video script - Did main parts of laboratory work

Link to the video: https://youtu.be/GPBTJy9UM9w

JavaScript Code

```
function moveSmall() {
    motors.largeBC.tank(20, 20)
    pause(200)
    motors.largeBC.stop()
}
function turnSmall() {
    motors.largeBC.tank(20, -20)
```

```
    pause(100) // tuned for small angle
    motors.largeBC.stop()
}

for (let i = 0; i < 36; i++) {
    moveSmall()
    turnSmall()
}
```