

## Contents

<b>1 About us</b>	<b>2</b>
<b>2 Allen</b>	<b>4</b>
2.1 Design . . . . .	4
2.1.1 Drivetrain . . . . .	4
2.1.2 Intake mechanism . . . . .	4
2.1.3 Launcher mechanism . . . . .	4
2.2 Programming . . . . .	4
2.2.1 Controller bindings . . . . .	4
2.2.2 JiggleIt incident . . . . .	4
2.2.3 PROS . . . . .	4
<b>3 Allen 2.0</b>	<b>4</b>
3.1 Design . . . . .	4
3.1.1 Offensive playstyle . . . . .	4
3.2 Programming . . . . .	4
<b>4 Allen 2.1</b>	<b>4</b>
4.1 Design . . . . .	4
4.1.1 Switch from iron to aluminium . . . . .	4
4.1.2 Pneumatic stake grabber . . . . .	4
4.1.3 Intake mechanism . . . . .	4
4.2 Programming . . . . .	4
4.2.1 Version control . . . . .	4
4.2.2 Switch to Python . . . . .	4
4.2.3 Control curve . . . . .	4
4.2.4 Functional programming style . . . . .	4
<b>5 Allen 2.2</b>	<b>4</b>
5.1 Design . . . . .	4
5.2 Programming . . . . .	4
<b>6 Mathematical techniques</b>	<b>4</b>

## 1 About us



**Figure 1:** This is a test image





## **2 Allen**

### **2.1 Design**

#### **2.1.1 Drivetrain**

#### **2.1.2 Intake mechanism**

#### **2.1.3 Launcher mechanism**

### **2.2 Programming**

#### **2.2.1 Controller bindings**

#### **2.2.2 JiggleIt incident**

#### **2.2.3 PROS**

## **3 Allen 2.0**

### **3.1 Design**

#### **3.1.1 Offensive playstyle**

### **3.2 Programming**

## **4 Allen 2.1**

### **4.1 Design**

#### **4.1.1 Switch from iron to aluminium**

#### **4.1.2 Pneumatic stake grabber**

#### **4.1.3 Intake mechanism**

### **4.2 Programming**

#### **4.2.1 Version control**

#### **4.2.2 Switch to Python**

#### **4.2.3 Control curve**

Aseer Tayeem

#### **4.2.4 Functional programming style**

## **5 Allen 2.2**