# PROJECT AND TEAM INFORMATION

## Project Title

(Try to choose a catchy title. Max 20 words).

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| Automated pet feeder |

## Student / Team Information

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| Team Name:  Team # on Canvas: |  |
| **Team member 1**  (Lastname, Firstname; SDSU email; picture): | Arratia, Ari – aarratia6786@sdsu.edu |
| **Team member 2**  (Lastname, Firstname; SDSU email; picture): |  |

# PROPOSAL DESCRIPTION (20 pts)

## Motivation (2 pt)

(Describe the problem you want to solve and why it is important. Max 300 words).

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| cats r cute and i like to feed them |

## State of the Art / Current solution (2 pt)

(Describe how the problem is solved today (if it is). Max 200 words).

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| A variety of smart pet feeders are already on the market. Common functionalities include timed food dispensing, adjustable portions measured by volume or weight, RFID detection to keep multiple pets from getting at each other's food, camera, automatic self-fixing of dispenser jams and more. A typical smart pet feeder will cost anywhere between 100 and 200 dollars depending on which and how many of these features you want. |

## Project Goals (4 pts)

(Describe the project general goals. Max 200 words).

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| We aim to make a cheap, minimal smart feeder with a small number of components. The feeder would be programmable via mobile app to dispense food at designated mealtimes and would send the user a message either when the meal is eaten, or if mealtime has been reached and the previous meal was left uneaten. |

## Project Approach (6 pts)

(Describe how do you plan to articulate and design a solution, architecture you would like to use and communication protocol (Wi-Fi, BLE, ...). Include initial milestones as well. Max 300 words).

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| milestones:  1. ensure working sensor setup (can tell if food is on plate or not)  2. implement and test dispenser mechanism  3. verify WiFi connectivity, communication with phone  4. |

## Hardware Required (2 pt)

(The provisional/initial list and quantity of the required components for the proposed project)

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| Component/part | Quantity |
| TTGO board | 1 |
| food tray | 1 |
| servo motor | 1 |
| storage bucket | 1 |
| pressure sensor | 1 |
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## Project Outcome / Deliverables (4 pts)

(Describe what are the outcomes of the project and how you will conduct a short final video/zoom demo. Max 200 words).

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| The finished product will include a mobile app that allows for setting of mealtimes. A full demo would show the following functionalities:  - mealtime can be set via app  - food is properly dispensed at mealtime only when tray is empty  - notification sent when food is removed from tray, or if dispensing is cancelled due to full tray |