Project Deliverable 2
Smart Prosthetic Arm
Hybrid Prosthetics™

Prepared for:
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CENG 322 - CENG 317

Prepared by:
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Project Scope

The focus of this project is a synthetic arm meant to benefit disabled individuals. This arm will have many functions, including temperature measurement, object detection, rotational axes (servos) and supports bluetooth/wireless connection. These functionalities will all be displayed to an app for the user to get all the information and control necessary to help with their everyday lives.

Name	Id	Signature	Effort
Samad Agha	n01364908		100%
Kevin Santizo	n01382533		100%
Narandre Ramdhan	n01240746		100%

Henry To	n01365792	Henry	100%

Github Repo

https://github.com/KevinSantizo2533/SmartProstheticArm

Github Invites:

Business Model Canvas:

Business Model Canvas

Designed for:	Designed by:	Date:	Version:
Smart Prosthetic Arm	Hybrid Prosthetics	October 11,2021	1

Key Partners

- Humber
- Hospitals
- Insurance Company
- Parts Crib
- Charities

Key Activities

- Software development and maintenance
- Branch out to more prosthetic devices
- Sponsorships from companies

Key Resources

- Software developers and engineers
- Physical
- Intellectual

Value Propositions

- User friendly app interface
- Help make the lives of PWDs easier
- Cost Reduction
- Performance
- Convenient
- Price

Customer Relationships

- 24/7 Customer support (Live Chat or over the phone)
- Fixing bug reports
- FAQ section on website

Channels

- Google Play
- Email
- Social Media
- Telephone
- TV Commercials

Customer Segments

- People / Persons with disabilities (PWDs)
- Amputees

Cost Structure

- Platform maintenance and development

Revenue Streams

- Product will be priced from $150-$300
- App will have an option for monthly subscription (premium) for benefits
- We will allow pharmaceutical companies to lease the product in bulk (50 or 100/lot)
- Sponsored by healthcare companies, hospitals, etc
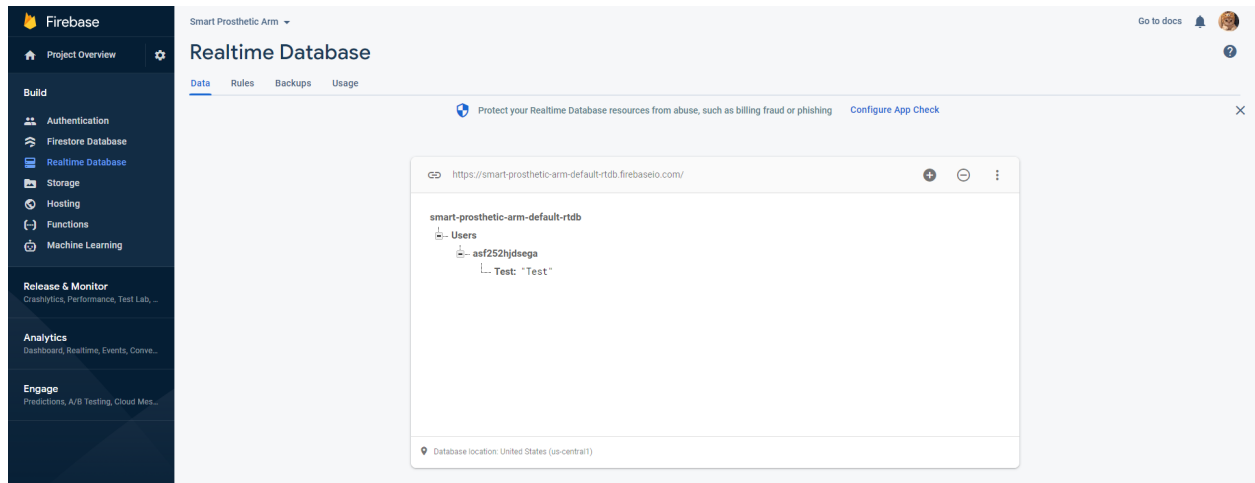
Firebase Creation:

Progress Since 1st Deliverable:

- Added Login Screen
- Added Register Screen
- Added Forgot Pass
- Added firebase
- Added error on click for invalid text in login register
- Added several button redirects
- Added splash screen with icon
- Added bluetooth rune time permission
- Added Consistent backgrounds colours fonts
- Added Realtime Database
- Added menu items with icons
- Added setting screen options
- Change username
- Bug Report
- Added several images
- Added snackbar after runtime permission
- Added landscape
- Added French Strings
- Added redirects to sensor screen
- Added status screen

Stand-up Records:

Discord was used for daily standups up until October 11th(Switched to Friday).

Samad Agha · 11 minutes ago · Edit ⋮

🐱 Daily Standups

What did you accomplish yesterday?

Updated Register Activity

```
- Added setError for isEmpty text fields
- Fixed contraints for Login Activity
- Removed unecessary code for Register null
- Renamed a couple variables for RegisterLayout
- Connected firebase
- Defined firebase and implementation in Register
- Re-adjusted Forgot activity constraints
```

Added Class User with Realtime DB

Fixed formatting of Forgot Activity

What's the most important thing you aim to accomplish today?

Implementing Firebase

Anything else you'd like to share?

Adjusted constraints designs and layouts

👏 1   😂 1   🙏 1   🎉 1   ☺

Henry To

🥤 Daily Standups

What did you accomplish yesterday?

deliverable 2 screens

What's the most important thing you aim to accomplish today?

Finishing deliverable 2

Stories

https://kevinsantizo.monday.com/users/sign_up?invitationId=16554461040520670000

Sprint 1 (Sept 28 - Oct 4) - Epic: Create layouts of all screens

Subitems		Owner	Status	Start Date	End Date	T-Shirt Size	
Create toggles and Sliders	⊕	🧑	Done	Sep 27	Sep 28	S	
Button Redirects to screens	⊕	🧑	Done	Sep 28	Sep 30	M	
Input text fields for credentials	⊕	🧑	Done	Sep 28	Sep 30	S	
Set backgrounds and fonts	⊕	🧑	Done	Sep 29	Oct 1	S	
Make screens complementary	⊕	🧑	Done	Sep 29	Oct 2	M	
Add images and constraints	⊕	🧑	Done	Oct 2	Oct 4	S	
+ Add Subitem							

+ Add

Sprint 2 (Oct. 1 - 8) - Epic: Interface for sensors

	Subite...	Person	Status	Date
Sensors screen(temperature, ultrasonic information)	⊕ ▾ 🗂 8	KS AR	Working on it	Oct 12

Subitems		Owner	Status	Start Date	End Date	T-Shirt Size	
Image buttons to redirect user to their ...	⊕	🧑	Done	Oct 3	Oct 4	S	
Create temperaure and ultrasensor scr...	⊕	🧑	Done	Oct 4	Oct 5	S	
Add logic to communicate with sensors	⊕	🧑	Working on it	Oct 4	Oct 5	L	
Create onClick methods in sensors fra...	⊕	🧑	Done	Oct 4	Oct 5	M	
Layouts for the ultrasonic and temper...	⊕	🧑	Done	Oct 4	Oct 5	S	
Button(layout) to retrieve temperature/...	⊕	🧑	Done	Oct 5	Oct 8	M	
Unique styles for objects within those ...	⊕	🧑	Done	Oct 5	Oct 8	S	
Button functionality to retrieve reading...	⊕	🧑	Working on it	Oct 5	Oct 8	L	
+ Add Subitem							

Sprint 3 (Oct 4 - 15) - Epic: Improve Login

	Subite...	Person	Status	Date
Validate Login/Register		SA +2	Working on it	

Subitems	Owner	Status	Start Date	End Date	T-Shirt Size
connection to firebase		Done	Oct 4	Oct 8	L
store user/pass to Firebase on register		Ready	Oct 4	Oct 8	L
Display login success with Toast		Done	Oct 6	Oct 8	S
Display error if blank/invalid input		Working on it	Oct 6	Oct 8	S
Encrypt password to Firebase			Oct 8	Oct 15	M
Send email for Forgot Password			Oct 8	Oct 15	M
+ Add Subitem					

+ Add

Sprint 4: Send/Retrieve sensor data

	Subite...	Person	Status	Date
Bluetooth Screen		AR +3	Working on it	

Subitems	Owner	Status	Start Date	End Date	T-Shirt Size
implement bluetooth adapter		Ready	Oct 12		L
add connectivity fucntion			Oct 12		
Retrieve information from servos		Working on it	Oct 12		L
Send data to servos		Working on it	Oct 12		M
display data on app (temperature)		Working on it	Oct 12		M
+ Add Subitem					

+ Add

Sprint 5: (Oct 5 - 10) Settings/Preferences

	Subite...	Person	Status	Date
Settings Screen		KS SA	Working on it	

Subitems	Owner	Status	Start Date	End Date	T-Shirt Size
Setup settings fragment/root_preferen...		Done	Oct 1	Oct 1	S
Add screen orientation customization(...		Working on it	Oct 2	Oct 2	S
Add language preference(French/Engli...		Working on it	Oct 3	Oct 4	M
Customizable user profile		Working on it	Oct 4	Oct 4	M
Add notifications switch button(on/off)		Working on it	Oct 11	Oct 12	M
+ Add Subitem					

Task Completion (in reference to DoD Criteria):

✔ Following the "Definition of Done" checklist:
✔ Reviewed team members code
✔ Ran each commit through members before committing
✔ Code Reviews Conducted
✔ Updated Members on upcoming changes
✔ Checked for Errors on compiling
✔ Noted any sort of warnings