



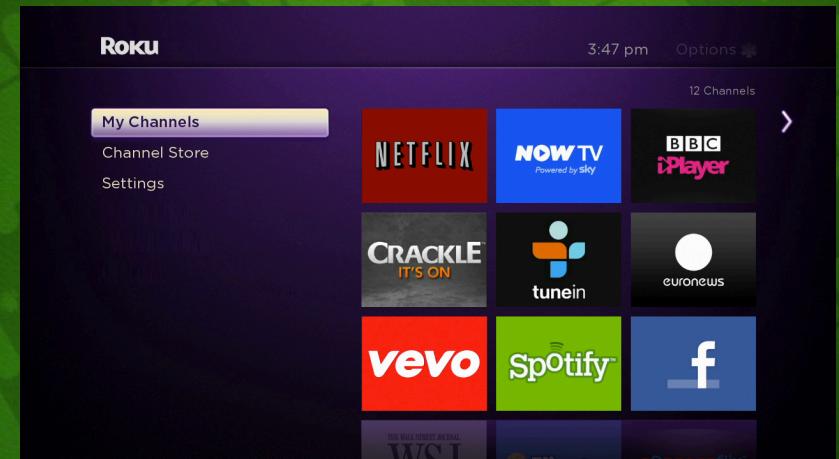
# Android TV

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# Overview

"Android TV is Android, optimized for the living room consumption experience on a TV screen"





# About



- Runs Android 5.0
- Announced on June 25, 2014, at Google I/O
- Supports Google Cast
- Removed packages with functionality for:
  - making/receiving calls
  - the camera
  - near-field communication
- Partnering with manufacturers to bundle the slimmed OS in TVs



# Specifications

## ADT-1

- Trega 4/Trega K1
- 2GB of RAM
- 16GB of storage
- Bluetooth 4.0
- HDMI
- Wifi ready
- USB port

## Nexus Player

- Intel Atom
- 1GB of RAM
- 8GB of storage
- Bluetooth 4.1
- HDMI
- Wifi Ready
- USB port

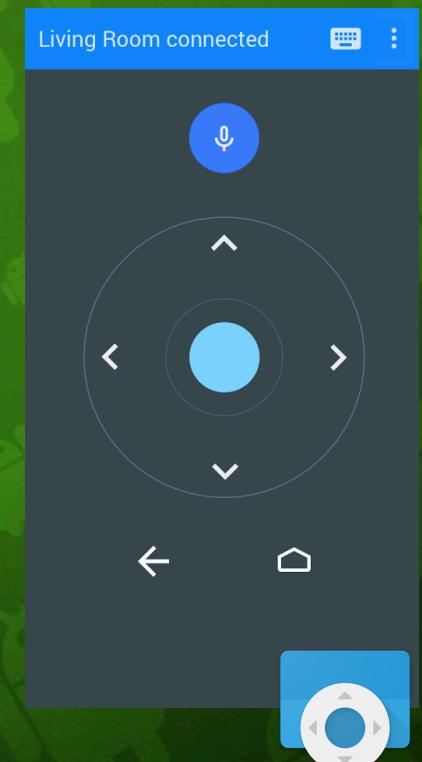


# Controllers

Gamepad Controller



Remote





# SDK Setup



# Emulator Setup



# Leanback : Do the rockaway

- “This song is all about Terror Squad being too cool to dance” – genius.com
- Came out in 2004 by the Terror Squad
- Questionable lyrics
- Popular when I was in high school
- Form your own opinions



# Leanback Library

Provides new APIs and widgets to support building user interfaces on TV devices. Including:

- BrowseFragment
- DetailsFragment
- PlaybackOverlayFragment
- SearchFragment



# BrowseFragment

The screenshot shows a fragment of an Android application with a light blue background. At the top left is a circular search icon. Below it are three items:

- Battle by Land**: Includes a thumbnail of a coastal landscape and a detailed description: "Level One. Take on the worse half baked game ever. This is the first level and only level where nothing really happens."
- Storm by Water**: Includes a thumbnail of turbulent ocean waves and a description: "Level One. There aren't actually any water levels, this is the same level as the first level in the land types."
- Settings**: A small circular icon.

The main content area shows a grid of cards. The first card in the grid is highlighted with a white border and contains the following details:

**Battle by Land**

**Level One**  
Take on the worse half baked game ever. This is the first level and only level where nothing really happens.

**Storm by Water**

**Level One**  
There aren't actually any water levels, this is the same level as the first level in the land types.

**Level Two**  
game level as the first level. It's amazing how much time it takes to make just one level.



# BrowseFragment

Extend BrowseFragment, calling any necessary UI convenience methods

```
public class TickTankMenuFragment extends BrowseFragment {  
  
    ...  
  
    @Override  
    public void onAttach(Activity activity) {  
        super.onAttach(activity);  
  
        setTitle(getString(R.string.app_name));  
        setHeadersState(BrowseFragment.HEADERS_ENABLED);  
        setHeadersTransitionOnBackEnabled(true);  
        setBadgeDrawable(getResources().getDrawable(R.drawable.ic_launcher));  
        setBrandColor(getResources().getColor(R.color.drawer_color));  
        setSearchAffordanceColor(getResources().getColor(R.color.search_color));  
    }  
  
    ...
```



# BrowseFragment

## Extend Presenter

```
public class TankLevelPresenter extends Presenter {

    @Override
    public void onBindViewHolder(ViewHolder holder, Object item) {
        TankLevelItem tankLevel = ((TankLevelItem) item);

        ImageView imageView = (ImageView) holder.view.findViewById(R.id.level_image);
        imageView.setImageDrawable(tankLevel.getBackground());

        TextView textView = (TextView) holder.view.findViewById(R.id.level_description);
        textView.setText(tankLevel.getDescription());

        holder.view.setFocusable(true);
        holder.view.setFocusableInTouchMode(true);
    }

    @Override
    public ViewHolder onCreateViewHolder(ViewGroup parent) {
        View view = LayoutInflater.from(parent.getContext()).inflate(R.layout.tank_level_presenter_layout,
                parent, false);
        return new ViewHolder(view);
    }

    @Override
    public void onUnbindViewHolder(ViewHolder arg0) {}
}
```



# BrowseFragment

## Populate the adapters

```
TankLevelItem tankLevel = new TankLevelItem();
tankLevel.setDescription(LevelFactory.getDescription(getActivity(), LevelType.LAND, 1));
tankLevel.setBackground(LevelFactory.getLevelBackground(getActivity(), LevelType.LAND, 1));
tankLevel.setLevelIndex(1);
tankLevel.setLevelType(LevelType.LAND);

ArrayObjectAdapter listRowAdapter = new ArrayObjectAdapter(new TankLevelPresenter());
listRowAdapter.add(tankLevel);

final String packageName = getActivity().getApplicationContext().getPackageName();
final String headerName = getString(R.string.menu_land);
final String headerImageUri = "android.resource://" + packageName + "/" + R.drawable.menu_land_icon;

HeaderItem header = new HeaderItem(headerName, headerImageUri);

ArrayObjectAdapter rowsAdapter = new ArrayObjectAdapter(new ListRowPresenter());
rowsAdapter.add(new ListRow(header, listRowAdapter));
```



# BrowseFragment

```
setAdapter(rowsAdapter);
    setAdapter(rowsAdapter);
setAdapter(rowsAdapter);
    setAdapter(rowsAdapter);
setAdapter(rowsAdapter);
    setAdapter(rowsAdapter);
setAdapter(rowsAdapter);
    setAdapter(rowsAdapter);
    setAdapter(rowsAdapter);
```



# BrowseFragment



Battle by Land

Storm by Water

Settings

**Level One**  
Take on the worse half baked game ever. This is the first level and only level where nothing really happens.

**Level Two**  
Same level as the first level. It's amazing how much time it takes to make just one level.

**Level One**  
There aren't actually any water levels, this is the same level as the first level in the land types.

**Level Two**  
Not to repeat myself but this is the same level as the first level in the land types.

**Level Three**  
You get the point.



# DetailsFragment



# SearchFragment



# Questions?

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[github.com/wildsmith/TickTank](https://github.com/wildsmith/TickTank)